Clinical Lecture
ON
DISEASE OF THE ŒSOPHAGUS;
WITH SPECIAL REFERENCE TO ŒSOPHAGEAL AUSCULTATION.

Delivered at the London Hospital,

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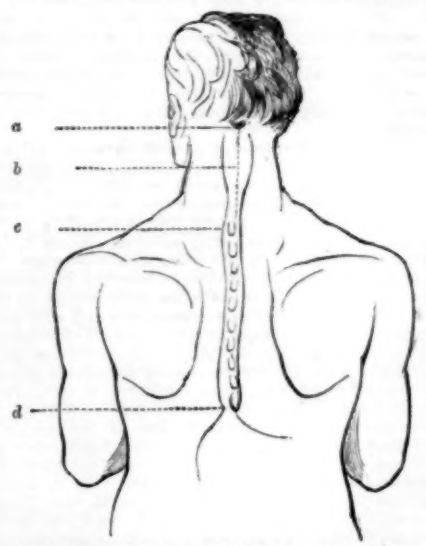
GENTLEMEN,—To-day I have to bring under your notice some cases illustrating disease of the œsophagus, and I shall take the opportunity of describing to you a new method of examining the gullet. For this addition to our means of diagnosis we are indebted to the labours of Dr. Hamburger, an Austrian physician. Others before him had occasionally endeavoured to auscultate the œsophagus, but to him is due the merit of establishing this method of examination on a scientific basis. Like many inventors, he is perhaps rather disposed to over-estimate the importance of his method; but after making deductions for his enthusiasm, the mode of examination must be admitted to have considerable value.

Before examining the patients with you, I will first describe in detail the mode of carrying out œsophageal auscultation. The œsophagus, you are aware, is a membranous canal about nine inches long, which descends along the front of the spine, from the level of the lower border of the cricoid cartilage to the cardiac orifice of the stomach. The upper opening of the œsophagus is opposite the fifth cervical vertebra, and its termination on a level with the ninth dorsal vertebra. It is well to remember, also, that as the spinous processes of the dorsal vertebræ are directed downwards the spinous process of one vertebra corresponds with the body of the vertebra below. There is often some little difficulty in counting the spinous processes, especially in the early stage of disease, when there is little emaciation; and it will be well to recollect that the œsophagus commences about an inch above the *vertebra prominens*, and terminates a little below the level of the lower border of the scapulæ. At its commencement, the œsophagus is placed in the median line; but it has two slight curves to the left side—one at the root of the neck, and the other as it passes forward to the opening in the diaphragm. The position of the œsophagus, and the curves it takes, are shown in the annexed diagram.

In investigating diseases of the œsophagus, the objective signs have, up to the present date, been principally studied by means of the bougie or œsophageal sound. I pass over œsophagoscopy, as that is an art which has never been practised on the diseased œsophagus, and only in very rare and exceptional cases on the healthy gullet. Much valuable information can be obtained with the bougie, but its use is attended with some inconveniences. It is a very disagreeable method of examination, and with nervous women (in whose cases differential diagnosis is often of the greatest importance) the introduction of the bougie often causes spasm of the œsophagus, and may wrongly lead the practitioner to imagine that an organic stricture exists.

Auscultation of the œsophagus is very easy, but it requires considerable practice and much patience: practice, because it is requisite to get the ear well accustomed to the normal œsophageal sounds; patience, because in each case it is necessary to apply the stethoscope successively down the whole length of the œsophagus, and to listen attentively at each spot. Let me explain to you Hamburger's method, as applied to a healthy man. We direct the patient to take a mouthful of drink—water does very well for the purpose, but a thickened fluid, such as gruel or arrowroot, answers better. We then apply the stethoscope, make a sign to the patient to swallow, and listen attentively: as the small portion of fluid, or if you will allow me somewhat arbitrarily to call it "the morsel," passes down the throat it produces various sounds, and conveys certain impressions to the mind of the auditor; the proper interpretation of these sounds constitutes the art of œsophageal auscultation. If the stethoscope be applied on a level with the hyoid bone on the side of the neck, and the patient be directed to swallow a morsel, a loud, gurgling noise is heard, which may be called the "pharyngeal sound." The word "glou-glou" has been said to imitate the pharyngeal sound, and occasionally a sound which may be represented by this word is undoubtedly heard. In order to get an idea of it "glou-glou" should be pronounced in a loud whisper; but it must be understood that in the greater number of cases the sound bears no resemblance to this word. If instead of listening in the neck the stethoscope be applied to the left side of one of the dorsal vertebræ, the true "œsophageal sound" becomes audible. The pharyngeal sound, which is due to the sudden passage of air and liquid into the pharyngeal cavity, is sometimes so loud, and so distinctly conveyed down the œsophagus, that it obscures the true œsophageal sound. In these cases it is better to let the patient take a continuous draught of water. By this means the intermingling of air and water is greatly diminished, and the œsophageal sound may be detected. The sound



a, Inferior curved line of occipital bone, about 5-8ths of an inch below the occipital protuberance. *b*, Pharynx. *c*, Vertebra prominens (seventh cervical vertebra). *d*, Termination of œsophagus, opposite the ninth dorsal vertebra.

which is heard conveys the idea of the rapid passing downwards of a small spindle-shaped body of fluid consistence; the sound is sharp and sudden, and ceases immediately. Hamburger describes the sound as being characteristic of an egg-shaped body, about an inch in length and half an inch in breadth, the small end of the egg being above and the large end below. Hamburger also thinks that the shape of the morsel affords a strong indication as to the condition of the muscular walls of the œsophagus, the lower end of the morsel or egg-shaped body being blunted or truncated in proportion to the feebleness of the muscular action. I must confess, however, these are refinements that I have not been able to arrive at.

The principal points which we have to consider are—first, the character of the œsophageal sound; and, secondly, the quickness of the act of deglutition. In some cases we shall find that the sound is very feeble, and occasionally altogether absent; sometimes we hear (and this often happens in organic stricture) a confused and continuous bubbling sound, lasting for several seconds; sometimes the sound is accompanied with a grating noise. The quickness of the act of deglutition is also of some importance, and is determined by placing the hand on the hyoid bone whilst the practitioner auscultates the œsophagus posteriorly: as the patient commences to swallow, the operator feels the hyoid bone rise, and can thus estimate the length of time

which elapses before the morsel reaches that portion of the œsophagus which is being auscultated. The rapidity of the act varies in different people in a state of health, and can always be made to take place quite slowly. This will be at once apparent by directing a healthy man to keep on swallowing for a few minutes some rather difficult substance, such as a mealy potato. Under ordinary circumstances, the lapse of time between the entrance of the morsel into the œsophagus and its arrival opposite the stethoscope placed at the side of the eighth dorsal vertebra is so short that it cannot be determined; but after swallowing several mouthfuls of potato without drink, two or three seconds elapse before the morsel arrives at the lowest part of the œsophagus.

Information can not only be obtained as to the passage downwards of the morsel, but its regurgitation can also be perceived when from any cause it cannot descend into the stomach. And the mode in which this regurgitation takes place sometimes enables us to distinguish between a spasmodic and an organic stricture; for whilst in the latter case an appreciable time elapses before the food is forced upwards, in spasmodic stricture the regurgitation is instantaneous. Hamburger also attaches importance to the direction which the morsel takes, and asserts that in some cases, where the œsophagus is pressed upon by a tumour in the posterior mediastinal region, the œsophageal sound may be heard more distinctly on the right side of the vertebræ than on the left; and, further, that in cases of disease of the vertebræ the œsophageal sound becomes deadened and indistinct.

Difficulty of swallowing may depend on a general awkwardness in the whole act of deglutition, or on a distinctly localised trouble. Deglutition being one of those compound acts which, though voluntary in its early stages, afterwards becomes involuntary, it is natural that it should be greatly influenced by anything affecting volition. Hence it happens that the mere idea of not being able to swallow often produces such a paralysing influence that the inception of the act is disturbed. It is therefore obvious that we have to deal with very complex phenomena, and any addition to our means of diagnosis must be accepted with gratitude.

Valuable, however, as are the various special modes of examination, it is most important that you should pay particular attention to the general condition of the patient. Above all things in œsophageal cases you must notice the general state of nutrition. As diseases of the œsophagus always give rise to dysphagia, and dysphagia leads to a smaller amount of food being taken, it is obvious that in any serious disease emaciation must exist. If, therefore, a patient complain of long-standing dysphagia, and yet present no sign of losing flesh, you may be sure that there is no organic disease. In practice you will occasionally meet with stout, well-nourished women who declare that they cannot swallow at all. You will at once recognise that the obstruction in the œsophagus cannot be of much consequence. Again, you will recollect that organic disease of the œsophagus is extremely rare under forty years of age, and that its most common period of development is between fifty and sixty. It is well to bear in mind also that syphilitic disease of the œsophagus is far more common in men than in women. It is rarely met with under thirty, most commonly it is found between forty and fifty, rarely after the latter age. Nervous affections of the œsophagus, of course, most commonly affect the female sex; they are frequently met with in young delicate girls of the upper classes, but women of all ages and social conditions suffer. The men who are affected are always those of highly emotional temperament. Simple loss of power is, as might be expected, most commonly met with in old people. Here there is often a difficulty in making out a differential diagnosis between impaired innervation and malignant disease, but the absence of expectoration in the former cases is the determining point. With these few preliminary observations I will pass on to the patients themselves.

I will first bring under your notice the case of J. P——, aged sixty-one, who was admitted into the hospital June 1st, 1873, suffering from dysphagia of seven weeks' duration. The disease had commenced in the previous February, and had been gradually getting worse, and when admitted he was only able to swallow fluids. He stated that he had twice had similar attacks—one in 1862, the other in 1869, but he acknowledged that he had suffered from constitutional syphilis in 1855. When first seen he was feeble and badly nourished. There was no evidence of lung disease, and he had neither cough nor expectoration. On examining his throat, the pharynx was seen to be healthy, with the exception of a slight cicatricial puckering of the anterior pillar of the fauces on the left side. The larynx was healthy, and there was no obstruction at the orifice of the œsophagus. On directing the patient to drink and auscultating the œsophagus, it was perceived that the morsel, on reaching a spot opposite the sixth dorsal vertebra, was thrown upwards or regurgitated with a loud splashing noise; the regurgitating fluid did not, however, come back into the mouth, but, after an interval of four or five seconds, passed down a second time beyond the point of obstruction, and reached the stomach. After repeating this experiment several times the morsel was regurgitated to such an extent that some of it passed into the larynx, and produced a violent attack of coughing. On attempting to pass a No. 8 bougie, a tight stricture was perceived at the junction of the lower third with the upper two-thirds of the œsophagus, and the introduction of the instrument caused slight bleeding.

The case was diagnosed to be one of syphilitic inflammation or ulceration of the mucous membrane of the œsophagus, and the patient was treated with iodide of potassium, ice, and guimauve lozenges. At the end of ten days he was able to swallow without apparent difficulty, although on auscultation it was perceived that the morsel travelled very slowly to the lower part of the œsophagus.

On examining the patient now, you will find that there is not only a certain slowness in the act of deglutition, but that there is a distinctly rough and grating noise, or friction-sound, as the morsel passes the sixth dorsal vertebra. There can be little doubt that in this case the affection was a syphilitic ulceration of the œsophagus, and that it has left some roughness at its former seat. Although this case has progressed extremely favourably, it is important to bear in mind that further thickening is likely to take place. It must be understood that the case is relieved, not cured, and that any error in diet or excess in alcohol is likely to irritate the weak spot, and lead to a recurrence of the stricture.

I may mention that, although these cases of syphilitic ulceration of the œsophagus often yield to iodide of potassium, they are occasionally followed by the growth of a truly malignant formation; it is very important therefore always to give a very guarded prognosis.

The next case which I have to bring before you is an exceedingly interesting one, as it illustrates malignant disease at a very early stage, and particularly exemplifies the value of Hamburger's method. It will also serve to call your attention to the occasional implication of a recurrent nerve in a carcinomatous growth in the immediate neighbourhood of the œsophagus.

S. C——, aged forty-seven, was admitted into the hospital on the 13th of May, 1873, on account of difficulty of swallowing, which had been coming on for six weeks. He is a tall man, 5 ft. 11 in. in height; but much emaciated, of cachectic appearance, and when admitted weighed only 9 st. 1 lb., although he stated that his weight six months previously had been 12 st. 4 lb. He said that he had never had syphilis; and there were no traces of the previous occurrence of that disease in the pharynx, larynx, or any other organ. He stated that he could generally swallow liquids, but that they sometimes went "the wrong way," and gave rise to violent attacks of coughing. Solids, in the ordinary sense of the term, will not pass down at all; but he can manage bread-and-milk with comparative ease. On examining him with the stethoscope, we perceive a distinct hitch opposite the third dorsal vertebra, and notice that the whole act of deglutition is performed very slowly. It is impossible either above or below the seat of stricture to appreciate anything at all characteristic of a spindle- or egg-shaped body, and all attempts to pass a bougie altogether fail. On examining him with the laryngoscope, the right vocal cord is seen to be immovably fixed midway between adduction and abduction; but the larynx is otherwise healthy. His breathing is not perceptibly impaired; but his voice is shrill. His condition has altered very little since his admission, with the exception that he now expectorates in considerable quantities. He has, however, gained 5 lb. in weight since he became an inmate of the hospital.

The questions which now arise are: First, What is the nature of the narrowing of the œsophagus? Secondly,

How is it that, if the patient be able to swallow liquids, and even semisolid substances, a bougie cannot be passed through the stricture? I unhesitatingly reply to the first question that the disease is malignant, and I ground my diagnosis on the fact of the implication of the recurrent laryngeal nerve. I have never known any intrinsic disease of the œsophagus, except cancer, to be associated with pressure on the recurrent nerve. Of course we often meet with cases of extrinsic narrowing of the œsophagus dependent upon mediastinal tumours where the recurrent nerve is involved, but in this case there is no question of an external tumour. Syphilitic disease of the œsophagus never gives rise to pressure on either of the recurrent nerves. With regard to the second question, the impossibility of passing a bougie is no doubt to be explained by the occurrence of a certain amount of spasm when an instrument is introduced. In giving a prognosis as to the probable duration of life in this case, if we were guided by the bougie alone, we should probably imagine that the patient could not survive beyond a few weeks; but with the information obtained by the stethoscope we may reasonably conjecture that he may live for some months. The increased expectoration is probably due to dilatation of the gullet above the seat of stricture—not, as you perhaps might imagine, to ulceration of the surface of the œsophagus. The continued obstruction at the seat of stricture has led to slight dilatation, and this dilatation has produced a pouch-like cavity. In the healthy condition a certain quantity of saliva is being constantly unconsciously swallowed; but in this poor man's case the mucus collects above the seat of stricture, and when a certain accumulation has taken place it begins to be expectorated. The implication of the recurrent nerve not only assists in diagnosis, but it also affects prognosis, for in itself it increases the dysphagia, and thus aggravates the starvation which slowly leads to death. In the ordinary act of deglutition, not only does the epiglottis cover the larynx, but there is every reason to believe that the ventricular bands and vocal cords become respectively approximated. In examining a patient with the laryngoscope and directing him to swallow, we do not see the complete approximation of these various parts, because the epiglottis in descending quickly occludes them from view; but we can perceive that, as the epiglottis descends, the ventricular bands and vocal cords approach each other. We know also that paralysis of the vocal cords often produces dysphagia, even when there is no disease (either intrinsic or extrinsic) of the œsophagus.

The next case which I shall bring under your notice is that of Mary R——, an unmarried woman, aged fifty-four. She had enjoyed good health, and led an active and laborious life, up to two years ago, when she began to suffer from severe indigestion. A few months later difficulty of swallowing commenced, and she has now great trouble in taking either solids or liquids. On directing this patient to swallow, you will perceive that deglutition is accompaned with a loud gurgling noise, which can be heard at a distance of three or four yards. On auscultating her in the upper dorsal region this sound is heard much more distinctly; but below the fifth dorsal vertebra there is a peculiar tympanitic sound, such as might be expected to occur from the passage of a small quantity of fluid into a gaseous chamber. And this is what no doubt actually occurs: the lower part of the œsophagus and the stomach are distended with gas, and it is this gas which really causes the obstruction to the passage of the morsel. The cause of the dysphagia is to be found in imperfect digestion. These cases are comparatively rare. They generally yield to careful treatment of a therapeutic and dietetic character. The patient should be directed to take fluids in great moderation, and they should only be drunk at the end of a meal; charcoal or carbolic-acid lozenges are often of great service. On the other hand, it is important to avoid all local treatment of the œsophagus. Bougies and other instruments only irritate the œsophagus, and lead to dilatation of that tube.

The last patient that I shall bring before you to-day is a man whom I have treated at intervals for the last eight years, and this circumstance will at once assure you that there is no organic disease present.

Wm. E——, aged thirty-two, a delicate-looking, poorly-nourished man, first became affected with difficulty of swallowing eleven years ago, the symptoms having first shown themselves after an attack of fever. When seen by me eight years ago he was rather worse than he is now, but he has undergone many changes in the meantime, sometimes having been scarcely able to swallow at all, at other times having been almost well. If you examine him now with the stethoscope you will notice a remarkable slowness in the act of deglutition, and a complete absence of the true œsophageal sound. His case is one of partial paralysis of the constrictors of the œsophagus, and of the muscular coat of that tube; the muscles no longer grasp the bolus, and it can therefore only descend by simple gravitation. He therefore swallows very slowly, and he will tell you that to eat his dinner comfortably he requires two hours, or at least one hour and three-quarters. This, though a moderate time for the consumption of a *dîner à la Russe*, does not suit an ordinary mechanic, so he is obliged to eat a small quantity of food very frequently. Faradisation applied directly to the œsophagus is the only remedy that does him any good; it does not cure him, but it immensely improves his deglutition. Sometimes he is able to dispense with treatment for several months, and he once remained cured for two years, but he generally requires faradising every two or three weeks. The patient is a lapidary, and at one time suffered from "lapidary's cramp" with paralysis of several muscles of the thumb and index-finger of the right hand, especially of the abductor, adductor, and short flexor of the thumb, and of the abductor indicis. The nutrition of these muscles was thoroughly re-established by faradisation, and he has never had any recurrence of the disease. The weakness of the muscular structure of the œsophagus and of its constrictor muscles cannot, however, be overcome, probably because the faradaic current cannot be so exactly or so continuously applied as to the muscles of the hand. In these cases it is important to encourage the patient in taking food to swallow a large bolus. The smaller the morsel the greater the difficulty in exciting the contraction of the œsophagus.

I have reserved my observations on the subject of diet in diseases of the œsophagus until now, although that is a very important matter. All food must be very nutritious and non-irritating. Alcoholic stimulants are injurious when there is organic disease, whether malignant or inflammatory. On the other hand, they are very beneficial in cases of functional weakness—especially if taken at the commencement of a meal. Fluids alone should be used where there is organic disease; solids or semisolids in the neurotic cases. Freshly cooked meat converted into a paste, or *panada*, by a masticator or sausage machine, and served with gravy, can sometimes be taken even better than fluids. Milk, however, always remains the staple diet, and the patient should be encouraged to take several pints a day. In all cases of dysphagia it is very important to attend to the state of the teeth. I have known many cases of difficulty of swallowing, especially in old people, cured by a set of artificial teeth; and even in cases of organic disease, when the treatment can, at the best, be only palliative, improved mastication may prevent the troublesome *contretemps* of the sudden arrest of a foreign body in the œsophagus.

ON THE WASTE OF LIFE BY PREVENTABLE DISEASE.

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(*Concluded from p. 722.*)

WITH the accession of a new Government we may perhaps hope for brighter prospects; although the cause of sanitary reform has received a heavy blow and great discouragement, in addition to the natural difficulties with which it always has to contend. Of these, the first and most serious is that it cannot be made a party question. My political friends tell me that I am terribly mistaken; but to me it seems that our system of party warfare has in great measure outlived its usefulness. A party question, in the present state of the national conscience and enlightenment, must be one on which men of equal intelligence and integrity are able to range themselves upon different sides; or, in other words, it must be one which, if we take into account the imper-

fection of human foresight, might be equally well settled either way. Party leaders are bound to maintain a perpetual supply of such questions for the use of their followers; as the Roman emperors furnished bread and amusements to the populace, or as Michael Scott had to keep his familiar at work. Party leaders have often reminded me, therefore, of itinerant merchants who may be met with in the smaller streets of towns, and who obtain bones, rags, bottles, and other of this world's goods, sometimes even halfpence, from the juvenile population, in exchange for very thin bags, made of india-rubber, gaudily coloured, and distended with wind. A party question, in its origin, must be something about which nobody cares. But it has to serve certain uses; and so, in order to fit it for these uses, it is inflated, and coloured, and magnified, and talked about on platforms, and written about in the press, until even those who have started it begin themselves to believe in it. By its means Ministries rise or are overthrown; until at last a time comes when it is settled and done with, and when the tide of human affairs rolls on, much as if the great question had never existed. Now sanitary legislation cannot be made to play this part, because there is complete agreement with regard to the ends sought to be attained. I know of no party that makes dirt the symbol of its union—I cannot conceive that any politician will ever become a secretary of state by his pertinacious advocacy of disease. There is no such rallying cry as "Our old fever, and our new epidemic." And so the good cause languishes for want of opposition; while those who have a pocket interest in any of the causes of pestilence are shrewd enough to hold their tongues. Another difficulty, inherent in the nature of the case, arises from the sort of feeling that men entertain with regard to dangers which they know to be real, but from which, after all, they fully expect to escape, and concerning the details of which they are, and prefer to remain, ignorant. Another, and perhaps the most important of all, and one moreover which we are bound to face, arises from the scepticism of the educated public with regard to the conclusions of medical science. Men say, and from this point of view I think they say justly, that doctors often make mistakes, that we confessedly know very little about many of the questions with which we have to deal—that we have not cured consumption, or gout, or cholera, that we are unacquainted with the causes of many diseases, and so forth; and on these grounds they feel an unwillingness, not altogether unreasonable, to submit to restrictions, or to spend money, or to do anything that is disagreeable, and that may, they think, after all, perhaps lead only to disappointment. This sort of feeling seems to me to be on the increase in society; and it has been materially strengthened by the shallow dogmatism of the mere "dirt" school, and by that utter break-down of the Acts of 1871–72, which I have endeavoured to trace to its true causes. People in general do not know, and cannot be expected to know, that many of the so-called sanitary reformers of a few years since, who attracted attention by their earnestness and self-confidence, and who came to be regarded as the representative men of the movement, were people who had never laboured at all at the investigation of facts, who shut their eyes resolutely against everything that did not coincide with their own doctrines, and who never commanded the confidence of the medical profession. Neither do they know that the so-called Local Government Board has acted from the first in total disregard or defiance, not only of medical opinion, but even of medical knowledge; as sagaciously, that is, as one who should try to build a house from the roof downwards, without reference to the law of gravitation. The general belief is, I have little doubt, that the doctors have had their innings, and that they have not only made no score, but that they have shown their inability to play the game. We, in this room, are well assured that we have, even now, positive knowledge by which, if we could apply it, we could greatly diminish disease; and we are also assured that many of the defects in our knowledge, with which we are taunted, are the direct results of the want of certain powers for which we are ready to ask. Take, for instance, the case of the cause of scarlet fever. A distinguished fellow of this Society holds that scarlet fever can be produced anew by the decomposition of blood, and another, that it is liable to arise spontaneously in any large aggregation of children. I can only meet either of these views by the Newtonian phrase "It may be so"; and I shall never be able to do more until society will help me by placing scarlet fever under some kind of restraint, by limiting the ordinary channels of its diffusion, and thus by narrowing down the inquiry within practicable bounds. I once lived near to some people with whom I had no acquaintance, but who had young children; and these children were accompanied in their walks by a very pretty, gentle, playful dog, which we came to know well by sight. One day this dog found its way into my garden, where it joined my children in their play, and, as we suppose, gave them all scarlet fever. The children to whom it belonged, we found afterwards, were all down with the disease, and the dog came straight from their beds to us. So, when scarlet fever appears, and we want to trace it to its origin, we have first to consider that it may have been conveyed in some such unsuspected way as this—from a stray dog, from a beggar, from the messenger of some tradesman, in a public conveyance, in a place of amusement, or by casual contact in the street. It may have been put into the letter-box by the postman, or delivered with clean linen by the laundress. As long as we cannot exclude these possibilities, we shall never have any knowledge of the facts; and therefore, on behalf of the medical profession, I say that our demand is not for any fresh sanitary law-making of the customary kind, but for law-making that shall establish conditions likely to remove our uncertainties. We do not want more power, but more light, and facilities for transforming that light into public opinion as fast as it is obtained. Let us see how these benefits could be secured.

In the first place, perhaps, we should ask politicians to settle, to the satisfaction of the country, a purely political question—that of the incidence of rating. Real sanitary reform, whatever its nature, must cost money, and this money must be drawn from rates. Now, I do not know, for I have never studied the question, whether the apparent injustice and inequality of rating are real, or only apparent, corrected by some compensating influence. But I do know this, that vast numbers of people who see the inequalities do not see the compensations, if such there be, and that they would oppose any increased expenditure from rates, however desirable in itself, merely because they are dissatisfied with the way in which rates are levied. It is not my business to point out how a reform should be effected, but only to show that it is urgently required.

In the next place, I would impose upon local authorities the same duties as at present with regard to the relief of sickness and destitution, to lighting, paving, and cleansing, to the maintenance of order, and to the protection of property, and I would add to these some others which are now occasionally undertaken, such as the maintenance of a proper gas- and water-supply, so that no necessary of life in any district should be a monopoly in the hands of a trading company. But in the discharge of these duties I would leave the local authorities, being themselves elected and representative, absolutely unfettered with regard to spending the money of their constituents, and I would also leave them at liberty to frame and enforce any bye-laws, not in contravention of the laws of the kingdom, that the circumstances of their several districts might require, or that the public opinion of the inhabitants would warrant. If ratepayers knew that the men whom they elected to be town councillors or guardians would have the power of making bye-laws and the power of spending money, the elections would be more carefully conducted than they are at present, the successful candidates would be persons of a very different stamp from some of those who are now returned, and the proceedings of the elected bodies would be subjected to an entirely new kind of scrutiny. While local boards were thus learning the uses of freedom and the elements of administration, time would be afforded for the improvement of the central sanitary organisation of the country and for carrying out measures of national importance. Among these, the principal would be the complete rehabilitation of the Medical Department of the Privy Council, under whatever name, in such a manner that it might continue to investigate, to advise, and to teach; an improved system of registration, so contrived that it should gradually embrace disease as well as death; and a somewhat close observation of the movements of tramps and vagrants, by whom, I believe, infectious diseases are now largely disseminated. With regard to the first of these requirements

I need at present say nothing; but the question of registration is one with which we are less familiar. There can be no doubt, I think, of the great advantages that would accrue from the sort of stock-taking of the public health that would be implied in a complete registration of disease, either continuously or at intervals. This is at present impracticable; but Mr. Lewis, of the General Registry Office, has matured and advocated a scheme, which could be easily carried into effect, for the registration of the disease that falls under the notice of public officials, such as the medical officers of unions, workhouses, and gaols. The details of this scheme have been published, and are easily accessible; and they have commended themselves, I believe, to all persons practically acquainted with the question, save and except one official, whose work would be materially increased if the suggestions of Mr. Lewis were carried into effect. I feel sure that even this limited registration of disease would prove of immense value in the course of a few years, and that it would pave the way for an extension of the system. The registration of death might unquestionably be improved in correctness, and the first step to this end would be the payment of a fee for the medical certificate. This fee need only be a small one; and it would not only give the public a claim upon the certifier to be accurate and careful, but it would also form an exception to the systematic injustice by which the Legislature has hitherto compelled the members of our calling to do important professional work for the State without remuneration. Besides these, I have yet another suggestion to make, which will perhaps to some appear startling, but for which I think the time is ripe and public opinion prepared. It is this: that there should be an official declaration to the local sanitary authority, by every medical practitioner, of every case of self-propagating disease that he is called upon to treat. I say "self-propagating," rather than "contagious"; because I should not propose to include any disease that was usually communicated by personal contact only. But I would make it the statutory duty of every doctor, as soon as he saw a case of self-propagating disease, such as fever, scarlet fever, small-pox, and some others, at once to give notice to the local sanitary authority. I would attach a small fee to the notice, and I would punish wilful neglect to give it by a sharp penalty; so that no one could hope to conceal the existence of one of the specified maladies in his family. When a doctor was not called in, the duty of giving notice should attach to the head of the household. I think that the entrance into a district of an infectious disease is a matter of public concern, and necessary to be made known to the guardians of the public health, just as the outbreak of a fire, or the arrival of a gang of burglars, should be made known to the guardians of the public safety. Fires are even more frequent than epidemics; but we do not suffer them to burn unchecked.

I foresee here, Sir, an objection to the effect that the publication of every occurring case of self-propagating disease would produce needless alarm, and might occasion injury to individuals by interfering with their business or other relations. I reply, first, that the alarm would not be needless; next, that a notification to an official authority is not necessarily an extended publication; lastly, that the interference with social relations which is produced when any infectious disease occurs in a provincial town, or in any other place of considerable but limited population, is far greater than that which would follow a declaration of the truth, now always liable to be greatly exaggerated. I have seen an absolute panic, in a town of about ten thousand inhabitants, consequent upon perhaps a dozen cases of small-pox. The inhabitants of the vicinity were afraid to come in to make purchases, retail business was almost suspended, particular shops, generally those that had no small-pox even very near them, were deserted, rumour magnified the outbreak into a pestilence, and several professional men and tradesmen found it necessary or expedient to issue public notices, through various channels, that their families had not been attacked by the disease. Ordinary medical practice came to a standstill, for people were afraid for a doctor to be seen entering their houses, and several patients, with various acute and chronic maladies, asked me to visit them only after nightfall. There was in the town, at this time, a very civil, active, and obliging hair-dresser, who made rounds in the neighbourhood on stated days to visit his country customers. He set forth as usual one fine morning, spruce and dapper, and with the stock of gossip that became his craft, to fulfil his accustomed functions. At the first house at which he called the servant hastily told him that nobody would have hair cut that day, and slammed the door in his face. At the second he met with similar treatment. At the third his dismissal came to him from an open window, which was instantly closed. Utterly bewildered, the poor man reached a fourth house, the proprietress of which, an elderly lady with an active temper and a copious vocabulary, appeared upon a balcony, and poured upon him a shower of indignant vituperation. His piteous inquiries as to what he had done at length elicited from her the information that his wife was lying dead of small-pox, that all of his five children were dying from the same cause, and that, if he did not go away directly, he should be given in charge to the police. Oppression, it is said, drives even a wise man mad; but the unhappy barber, after executing a frantic war-dance upon the grass-plot of his tormentress, sufficiently recovered himself to hasten home, and to come, gasping for breath and bathed in perspiration, to ask me to give a certificate of the perfect health of his wife and family. Now, incidents of this sort could no longer happen if in all such cases the truth were ascertainable from an official source.

With regard to the control or registration of the movements of vagrants—persons wandering from place to place with no visible means of subsistence,—I presume the only difference of opinion will be whether the measure is one of sufficient importance to be worth the trouble of carrying it into effect. I think it is, for I believe that a single vagrant, suffering from a mild form of typhoid, may contaminate the water-courses of half a dozen localities. But what I want is, as I have said, knowledge rather than power, or, in the first instance, to be able to track these wanderers with facility, so as to find out and prove the mischief that they do, rather than, without evidence, to arrest their steps.

I have already said that the enforced appointment of a medical officer of health in every district was an absurdity, because there were not a sufficient number of qualified persons to appoint. As a matter of fact, the tenure of office will determine, in every case, after five years; and, in many cases, the absurdity has been too manifest to be repeated. But local authorities, in the discharge of their duties, must frequently feel the need of medical advice; and I would have them obtain it just as they obtain any other advice. A board, when in doubt upon a legal question, applies to its legal officer; and he, in case of need, is instructed to obtain counsel's opinion. If this does not settle the point, there remains the resource of an appeal to a central authority; or, in other words, to the law officers of the Crown. Is there any reason why, in like manner, a local authority should not apply, on any question of the public health of the district, to a local medical officer; or why, if he gave an uncertain sound, he should not hold a consultation with some one of larger experience than his own; or why there should not be an ultimate appeal to the central medical department. Of course, in certain localities, the need for medical advice would be so constantly recurring that it would be wise to appoint a medical officer of health, whose knowledge would always be at the disposal of the sanitary authority; but on this point, as on most others, I would leave that authority unfettered. But a medical officer of health, if appointed, should immediately be brought into relation with the central medical department, and should be made to feel himself an outlying officer of that department; to which, also, all reports of self-propagating disease, or other reports made to the sanitary authority, should be forwarded as a matter of course, so that the department would have full knowledge of the sanitary state of every district. It should be empowered, also, to conduct inquiries in every district, either at its own instance or at the request of ratepayers, and to publish the results of these inquiries; showing, as far as they were ascertainable, the causes of the healthiness or unhealthiness of the locality.

Under such arrangements as those which I have endeavoured to sketch in this brief outline, which would render every locality responsible for its own condition, and which, while they relieved it from central control, would leave it subject to central inspection and report, I do not doubt that the public health would soon be greatly improved. It must be remembered that a diminished rate of sickness and mortality in a district would mean a very sensible increase in

the value of property, and *vice versâ*; so that the potent lever of self-interest would soon become a moving power in the cause of sanitary reform. At first different municipalities would take different courses, and would afford—to borrow a phrase from Cuvier—so many experiments prepared by Nature for the determination of doubtful questions. In one place, for example, the first recorded case of typhoid or scarlet fever would be isolated, and the infection would be suffered to die out, like a match thrown upon a stone floor, at a cost of five or ten pounds. In another place the match would fall as into a straw-yard, and the conflagration would cost, say, a thousand pounds. In one place we should see an enlightened liberality, leading rapidly to a diminution of expenditure, of disease, and of death, and to a corresponding increase in the value of property; in another, a narrow-minded parsimony and a hatred of knowledge for its own sake, leading to extravagant outlay, to sickness, to mortality, and to depreciation of property. These contrasts should be observed in all their features and carefully made known by the central medical department, and they would in time produce their natural effects. Certain places, notably those whose business it is to attract visitors, would always be the pioneers in the path of improvement, and public opinion would in time demand the general adoption of regulations that had proved salutary wherever they had been put in force.

And now, Sir, in such brief and imperfect outline as the time at my disposal would permit, I have endeavoured to show, first, that the condition of England with regard to preventable disease is such as to call loudly for improvement; and, secondly, that the past failures of sanitary legislation and administration have been mainly due to the neglect, by politicians, of medical science and of medical opinion. I have sketched, also, the methods of procedure which, to my mind, seem calculated to bring about a better state of things. Something I had intended to say by way of peroration; but I have already addressed you for ninety minutes; and the worst fault of a speaker is to neglect opportunities of leaving off. If my words have been acceptable to this Society, and if they should be endorsed by the mature opinion of its distinguished fellows, they can hardly fail to find favour also with the public. In that case I shall feel that I have done something, however humble, to lighten a burden that presses heavily upon the happiness and the prosperity of our beloved country.*

ON

SOME POINTS IN THE DIETETIC TREATMENT OF DISEASE.

BY E. A. PARKES, M.D., F.R.S.

(*Concluded from page* 724.)

III. WHAT is the influence of alcohol on appetite and digestion?

Few more important questions could be asked by men concerned in the treatment of disease, but so difficult is the answer that no writer I know of treats it fully.

It is, I believe, generally admitted that in large doses alcohol lessens, and at length destroys, appetite. It is very desirable to know if this is the case, and, if so, what is the quantity which will thus act in healthy men. I have made some observations on this point, which I will now give.

A healthy man took, on successive days, one, two, and four fluid ounces of absolute alcohol in divided doses with water and food. The first two quantities did not lessen appetite, but, according to the man's statement, increased it. Four fluid ounces, however, greatly lessened appetite; and on increasing the quantity to six and eight fluid ounces appetite was entirely destroyed, and the man could eat nothing. These experiments showed that in this healthy man something between two and four fluid ounces of alcohol in twenty-four hours lessened appetite.

Another man took, on successive days, in one dose and before food, one, two, four, six, and then again six fluid ounces of undiluted brandy, containing about 50 per cent. of absolute alcohol. The one and two fluid ounces of brandy (equal to half an ounce and one ounce of absolute alcohol) had no perceptible effect on appetite one way or other; four ounces of brandy (equal to two fluid ounces of absolute alcohol) greatly lessened it; and six ounces of brandy (equal to three ounces of alcohol) destroyed it, so that the man could not force himself to eat all his food, though strongly urged and indeed anxious to do so. In this case the brandy was given three hours after breakfast and three before dinner.

To another healthy man six ounces of undiluted brandy were given on three days, three hours before food; and on three alternate days he took no brandy. The brandy contained 36 per cent. of alcohol by volume, and therefore the six fluid ounces contained a little over two fluid ounces of absolute alcohol. In this experiment the man was kept without food every day from 6 P.M. until 1 P.M. the next day, or for nineteen hours; he took the brandy therefore after sixteen hours' fasting. On the days when he took no brandy his appetite was excellent. On the brandy days, although he felt excessively hungry before he took the brandy, he lost all sensation of hunger soon after it: in spite of urging he could not take all his food even after this long fast.

It seems, then, that alcoholic beverages containing about two fluid ounces of alcohol produced marked lessening of appetite in both those men who took the brandy on an empty stomach; and in the first man, who took the alcohol with food, something more than two ounces was required to produce this effect.

In a fourth healthy man twelve ounces of brandy taken in divided doses during the day, and chiefly with food, did not affect appetite, but the man informed me that he was himself well aware that a large quantity would do so, as he had often made the experiment on himself.

These observations may be considered in the light of fairly exact experiments on men whose digestion was perfect and who were quite healthy. In no case were the men prompted, nor did they know whether I expected that the appetite would be increased or lessened. Three of them thought the appetite would be increased; the fourth knew, from previous experience, that spirit-drinking largely destroyed appetite. I believe it may be safely concluded that anything over two fluid ounces of alcohol may lessen appetite if the stomach be empty, and therefore necessarily injures digestion.

The observations I have myself made on this point on cases of disease are, I am sorry to say, fragmentary. I have seen some patients who were having large quantities of alcohol and who complained that they could eat nothing, and on lessening or taking away alcohol the appetite has returned. In such cases I cannot but conclude that alcohol was acting hurtfully; for surely, in most cases of disease, one great object is to get nourishment of the ordinary kind into the system. But there are other cases in which men have taken considerable quantities of spirits and yet could eat well. I think the time when the spirit is taken may make the difference. In my healthy men the greatest injurious effect on appetite was produced when the alcohol was taken on an empty stomach, and the least when it was taken with food.

The injurious effects of such doses of alcohol will, I believe, be admitted; but now let me turn to the other side.

If alcohol in large quantities lessens, and eventually destroys, appetite, do small quantities increase it? Let me test this first by healthy men.

The man whose appetite was nearly destroyed by four fluid ounces of alcohol thought that one and two ounces increased his appetite. The man whose appetite was destroyed by four fluid ounces of brandy did not think that one and two ounces had any effect either way. He was, indeed, disappointed with the effect of one ounce of brandy, as, after abstinence for many days, he had been looking anxiously for it, and thought he should enjoy his dinner more. In this case, then, half an ounce of pure alcohol had no effect; and, subsequently, one ounce of pure alcohol was not more potent in increasing appetite in this man. Would smaller quantities have been more useful? To this I can give no answer from experiment. In the case of the man

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* I am anxious to add that the address, as now published, is not exactly what I delivered. Certain statistical and other details, which I omitted in order to save time, have been printed at length. But a short account of the acts and policy of the Poor-law Board, of the causes to which, as far as can be known, those acts and that policy have been due, and of some of the results to which they have led, has been expunged, in deference to the judgment of others.

whose appetite was not lessened by twelve ounces of brandy given in divided doses, there was no increase. In the fourth man the brandy was given in too large doses to test this point.

The evidence from these three healthy men as to any increase of appetite and more vigorous digestion from small doses of alcohol is therefore uncertain, and it is more negative than positive.

Turning, however, from these experiments to the general opinion derived from talking with patients and friends, my own experience is this:—Both healthy men and patients have told me that appetite has been really increased by taking spirits, wine, or beer, in small quantities with food.

I have two observations on this point which seem to be really exact. A relative of my own, and a man of singularly good judgment and honest mind, was a total abstainer for many years. When he was between fifty and sixty years of age he got out of health; his digestion became feeble; he ate less, and began to get thinner. He was advised to take one-half to one pint of beer with dinner. He did so unwillingly, but found to his surprise that he ate more, digested better, and soon recovered all his lost ground. He has continued taking beer once a day and occasionally one or two glasses of wine ever since. He is now seventy years of age, very healthy, and has no doubt that he has been greatly benefited by this alteration in diet.

The other case is even stronger, and will be interesting to all, because it occurred to my friend Dr. Carpenter, who has done more than any man living perhaps to advocate temperance. In his writings on this subject, Dr. Carpenter has always maintained that the action of alcohol on the human body when under par is different from its action on an individual in full health, and is beneficial in many cases with depressed digestive power. He has been so kind as to give me an account of his own case, and to allow me to quote it. He writes to me thus: "After having been a water drinker during all the earlier part of my life, and enjoying a fair measure of health and vigour, I broke down about ten years ago under the pressure of excessive work, and, besides a local disorder, I then suffered from a total loss of appetite and enfeeblement of the digestive power, so that my whole system was undergoing a rapid lowering. My medical friends recommended me powerful tonics, combined with three glasses of sherry daily, and on this regimen I improved even more rapidly than they expected, and was able in a month's time to enjoy a tolerable dinner, gradually reducing the quantity of wine I took with it. They had at first expected that I should be obliged to winter in the south of Europe; but I rallied so fast that this idea was soon abandoned, and I was able to return to my work after a three months' absence. Ever since that time I have taken a couple of glasses of light claret with my dinner, and this fluid suits me very well. I often reach home very tired, and feeling as if I could eat nothing, and I am certain that without this little 'fillip' I should eat nothing. The question lies, therefore, in such cases between the use of the slight alcoholic stimulus and the inadequate nutrition of the body, and I cannot myself doubt which is the *least* of what I am willing to admit to be *two evils*."

Coming from such a man, this evidence seems to me indisputable, and, coupled with that derived from watching patients with weak digestions, I think may be called conclusive.

Then come the questions, What amount of alcohol increases appetite, when should it be given, and in what form?

With regard to the *amount*, I should say that, if I may judge from my own experience on healthy men and on patients, the quantity which should be given for this particular purpose of increasing appetite should not exceed one fluid ounce of absolute alcohol in a day, and I think half an ounce is often enough. If this does not improve appetite, a larger quantity will not do so. I am quite sure we cannot force appetite by increasing the amount of alcohol, but, on the contrary, shall run the risk of lessening it. Alcohol has sometimes to be given in large quantities to urge on a failing heart or to blunt sensation; but this is another thing. In such cases a paramount necessity compels us to disregard the question of appetite. But when, as in most cases, our object is to get more nourishment into the body, then we should keep, I believe, to small doses, and if the medicine fails, try something else. I must add to this, however, by affirming what I am quite sure of by observation, that there are persons whose appetites and digestions are injured by even small quantities of alcohol, and who digest much more and eat much more when water only is taken. The healthy digestion of children is, I think, always injured.

As to the *time* when it should be given, I have no doubt it must be with food. The reason of this is tolerably clear. The alcohol is mixed with the contents of the stomach, acts, therefore, in a very diluted form upon the mucous membrane, and is absorbed slowly. We may, therefore, safely infer that the excessive redness and dilatation of vessels, which a tolerably strong alcoholic solution causes in living tissues, is avoided; there is probably a moderate paralysis of the vaso-motor nerves and a more rapid circulation and pouring out of gastric juice. But give it without food or in such large quantities even with food as to impart to the fluids bathing the delicate cells and tubes of the stomach a more concentrated alcoholic composition, and we can believe that the albuminous tissues are damaged and the nerves and vessels are probably paralysed to an extent which interferes with the formation and pouring out of the gastric juice. If this be so—and I believe the facts indicate it—what madness it is for men to be drinking at all times of the day, especially spirits and strong wines, which must inevitably ruin in the long run the surfaces they bathe and the tissues they pass through in a comparatively concentrated state.

With regard to the *form* in which alcohol is given to promote appetite, I think if a fattening effect is also desired, and no gouty tendencies exist, beer containing a good deal of malt extract is the most suitable; if salines and acids seem to be desirable for the kidneys, then the light French wines seem a good form, though many persons of weak digestion are unable to tolerate the quantity of acid and acid salts most of these wines contain. In certain cases the stronger astringent wines may evidently be best, and in all cases, no doubt, a natural wine, as little doctored as possible, and free from the chance of other alcohols or of fusil oils, should be ensured. But I confess I am quite unable to know on what grounds such minute distinctions are so often made in recommending wines—why one should be prescribed, and the other prescribed, although practically the same. Purity, alcoholic strength, and the amount of free acidity, salts, and extract, are surely the most important points to guide us in prescriptions, for the ethers are in too small a quantity to have much effect on digestion, though the aroma and bouquet they aid in giving may be pleasant.

For many patients, when the effect of alcohol on digestion only is sought, I think by far the best plan is to follow the plan recommended by Wilks, and to give rectified spirit, properly disguised, as a medicine; we shall then be certain of purity, that proper quantities are given, and at the time we desire; that no discretion is left to nurses or friends, and that the chances of a bad habit being formed are less.

I have confined myself in these remarks to one of the actions of alcohol, the importance of a correct knowledge of which can scarcely be overrated. I have not desired to enter into the question of the action of alcohol on the heart, nervous system, or other parts, but simply to commence a discussion on this one theme—viz., the influence of alcohol on appetite and digestion, and the consequent nourishment of the body.

EXCISION OF THE SCAPULA AND NEARLY THE ENTIRE CLAVICLE FOR MALIGNANT DISEASE.

BY C. S. JEAFFRESON, F.R.C.S. E.,

SURGEON TO THE CHILDREN'S HOSPITAL, AND ASSISTANT-SURGEON TO THE NEWCASTLE-ON-TYNE INFIRMARY.

A BRIEF account of the case which is illustrated below cannot fail to be of interest to the readers of THE LANCET, although I hope at a later period to give the profession a more detailed history of it in all its particulars.

Miss S——, a fair-complexioned, healthy young lady, twenty years of age, first consulted me in the commencement of July last. She complained of pain and swelling in the neighbourhood of the left shoulder-joint. Occupying the upper part of the left humerus was a large, somewhat ill-defined, swelling; it was deeply seated, and evidently

underlying the various muscles which cover the upper part of that bone. At this time, at its largest portion, it measured in circumference twelve inches. There was little difficulty in diagnosing it to be a malignant growth from the bone; and, on inquiring into her family history, I discovered that her mother had died when about forty years old of uterine cancer.

At this period amputation at the shoulder-joint was strongly urged upon my patient, but she would not consent. In the course of a few weeks the swelling rapidly enlarged, and the bone gave way in its centre. For a short period I now lost sight of my patient, who, in despair, had placed herself under the care of a bone-setter. The treatment she received at his hands did not tend to ameliorate matters, and, at the commencement of August, when she returned to me, the circumference of the humerus at its largest part was sixteen inches and a half. The swelling had spread upwards. Large veins ramified upon its surface, and it presented exactly the appearance of a case depicted in vol. ii., p. 108, of Mr. Erichsen's "System of Surgery." Amputation was now performed at the shoulder-joint by means of a skin flap from the region of the deltoid. The stump healed rapidly, and for some few weeks there was no appearance of return of the disease.

On examining the growth which was removed, it was found to be a large encephaloma surrounding the upper part of the shaft of the humerus. It had evidently grown under the periosteum, and the bone had given way in its centre. There was no enlargement or expansion of the fractured extremities, but they lay free in a cavity full of extravasated blood and broken-down encephaloid matter. No spiculæ of bone were detected in the substance of the new growth.

In December I again saw Miss S——. At this period the whole of the stump was enlarged, and small fungating masses protruded from some portions of the old wound. But the chief indication of disease was a large swelling occupying the pectoral region. This swelling, which grew beneath the pectoral muscles, was of bony hardness, and firmly connected with the scapula and apparently the outer portion of the clavicle. When the scapula was put in action it moved freely in conjunction with it, and the skin over it was still fairly movable. There was no tenderness, but it was the seat of most excruciating pain, which radiated in the direction of what felt to her to be the arm and fingers. It was now obvious that nothing short of removal of the whole scapula and clavicle would be of any service. This course was proposed to her, and, after a consultation with Professor Spence, of Edinburgh, was agreed upon.

On the 14th of December, with the kind assistance of Drs. Hume, Page, Scotland, and others, I performed the following operation:—The patient, being fully anæsthetised, was placed upon her right side. An incision was made from the top of the acromion, passing a little above the spine of the scapula to within an inch of the central line of the back. A second incision was then made from the lower part of the axilla, passing obliquely downwards to the central line of the back, corresponding nearly to the upper margin of the latissimus dorsi muscle. These two incisions were joined at their distal extremities by a perpendicular one, and thus the whole mass of integument covering the scapula was reflected. All bleeding vessels were carefully tied, and the patient placed upon her back. The second stage of the operation now commenced. An incision was made, commencing at the tip of the acromion, passing along the whole length of the clavicle, and ending at its sternal articulation. The clavicle was carefully freed of all its coverings, a flat director passed under it somewhat to the inner side of its middle, and upon this it was sawn across with a hand-saw; the inner fragment was seized with bone-forceps, and about an inch removed. With a silver knife the structures surrounding the subclavian vessels were freed, and the vessels so exposed that they could readily be grasped by an assistant. The third stage was now entered upon. The patient was again turned upon her side, the muscles rapidly detached from the scapula, and the skin detached from the lower triangles of the neck. The deeper attachments of the scapula and tumour were quickly divided, commencing at the lower angle, and gradually passing upwards. Finally, an incision was made, commencing at the junction of the inner with the middle third of the clavicle, and passing downwards and outwards to join the one which passed along the upper edge of the latissimus dorsi, and the whole mass was detached.

The vessels were so perfectly controlled, owing to the previous division of the clavicle and the removal of a portion from its centre, that but comparatively little blood was lost; nevertheless, the evidences of shock were very great, and at the moment of detachment of the mass, death seemed imminent. In a short time, however, the patient revived.

FIG. 1.

FIG. 2.

Fig. 1 gives a representation of the front view of the patient after the operation. Fig. 2 a side view of the same. Both are engraved from photographs in my possession.

The flaps, when brought together, fitted very accurately, and were retained in position by eighteen points of suture, and in all seven ligatures were employed.

It will be unnecessary to give a detailed account of the progress of the case. A great portion of the wound healed

by the first intention. The patient was able to leave her room in less than a month.*

The length of the combined incisions measured in all about three feet.

An examination of the parts removed proved of great interest. The bulk of the growth consisted of two oval masses of dense ivory-like bone, which, though in close apposition to each other, were not connected. Growing deeply in the angle between the inner surface of the scapula and the ribs, these masses had no absolute connexion with any of the bones, although they had contracted extensive adhesions to the periosteum of the scapula. From their form I believed them to be ossified lymphatic glands, such as are occasionally met with in cases of osteoid cancer. The base of the stump was infiltrated with firmish encephaloid matter.

In a short paper like the present I shall not attempt to make any remarks upon this case, which is full of interest both in a surgical and pathological point of view; but as the number of cases in which a similar operation has been undertaken for disease is comparatively small, I have appended the following short table of all those I can find recorded. Others have occurred where the same parts have been removed by accident or as the result of accident. These obviously should not find place in the table.

Cases of Removal of Scapula and portions of Clavicle after amputation at the Shoulder-joint.

Name of operator.	Age and sex.	Nature of operation.	Cause of operation.	Result.	Remarks.
Cumming, 1808 ...	...	Removal of scapula ...	... ...	... ...	Particulars not known.
Mr. Mussey, 1837...	Male, 30	Removal of scapula and clavicle	Osteo-sarcoma	Recovery	An interval of six years between first and second operation.
Rigaud, 1842... ...	Male, 15	Removal of scapula and outer half of clavicle	Not known ...	Recovery	
Sir Wm. Fergusson, 1847	Male ...	Removal of scapula and acromion	Caries of scapula	Recovery	
Dr. M'Clellan, 1838	Male, 17	Removal of scapula and clavicle	Medullary tumour	Recovery	Died six months after.
Prof. Syme, 1863 ...	Male ...	Removal of the whole scapula	Cartilaginous tumour	(?)	Head of humerus had previously been excised.
Mr. Jeaffreson, 1873	Female, 21	Removal of scapula and three-fourths of clavicle	Osteoid cancer	Recovery	

THE PROGRESS OF HEART DISEASE.

By J. MILNER FOTHERGILL, M.D., M.R.C.P.

(*Continued from page 686.*)

THE condition of the lungs will often tell much as to the progress of the case. The proportion of the respirations to the pulse is often suggestive, and increasing dyspnœa is significant. Cough—the dry, harsh cough of pulmonary congestion—has often momentous indications. The flow of bronchial mucus, or rather of serum, from the bronchial veins is often a valuable indication of venous fulness; and though Rindfleisch follows Rossignol as to the inosculations betwixt the bronchial vessels and the pulmonic circulation, it must be admitted that, clinically, bronchorrhœa is associated rather with venous fulness than mere pressure in the pulmonic circulation. Witness the effects of digitalis in reducing the bronchial flow so often found along with mitral disease; and yet it at the same time increases the blood tension in the pulmonary vessels. Orthopnœa tells us that the condition of the right ventricle is such as to render it very sensitive and impressionable to a full stomach, or a distended colon on the other side of the thin diaphragmatic aponeurosis. The condition of the abdomen is important, and often gives us valuable indications. The changes in its bulk, its contents, fluid and gaseous, the size and tenderness of its contained viscera, must not be overlooked. The size and tenderness of the liver are especially important, depending so much as they do on venous congestion. The pulsation of the liver is a sign much relied upon in Germany; its pulsation being due to the right ventricular contraction being propagated down the veins into the liver. The spleen, too, is enlarged, its outlines and boundaries on percussion being extended. The condition of the alvine discharges, the presence of hæmorrhoids, furnish us with important information. They tell us further of the congestion in the valveless, and so unprotected, portal circulation, and of the fulness of the portal radicles—a condition of fulness in which the gastric branches share, and which interferes much with the gastric circulation when the arterioles become dilated in the act of digestion. My friend, Dr. Lauder Brunton, has pointed out to me how such venous stasis presents a serious obstacle to the blood-flow then, and so interferes with and retards digestion. That under such circumstances there should exist an ever-present and often distressing sensation of fulness—a symptom regarded as pathognomonic of heart disease—is no matter for surprise; nor can we wonder at the common presence of grave dyspepsia, this venous congestion often being accompanied by an excess of urea in the blood.

Of equal importance, or even of greater moment, is the effect upon the kidneys, not only as to their function, but even as to their structure; long-continued venous fulness leading to a development of connective tissue in them, and subsequent cirrhosis. The gradual diminution of the bulk of urine is significant of waning power in the heart, and loss of arterial tension. Where there exists combined heart and kidney disease the large flow of urine, so characteristic of the middle stage of Bright's disease, gives way in time to the small bulk of urine of high specific gravity, which, when persistent, is so characteristic of heart failure. The presence or absence of albumen is noteworthy, and the appearance of recent tube-casts is very suggestive.

The importance of passing a fair amount of water in the treatment of dropsy (cardiac) is well known, and agents which produce this result are the favourite remedies in our treatment; but their diuretic effect is due to their power over the circulation, and to the increase in arterial tension which follows their administration; for on the arterial tension the flow of urine chiefly depends. But mere bulk of urine is not everything; and the attempt to produce it by large draughts of fluid, mineral waters, &c., is not only founded on an imperfect physiological knowledge, but is a practice positively deleterious to the patient. A large amount of the imbibed fluid passes quickly from the stomach into the blood, increasing its bulk, and so, for the time, the blood-pressure on the renal glomeruli; but the increased flow is nothing more than the draining off of a portion of the ingested fluid, not a true diminution of the bulk of blood. Such diuresis avails nothing; but the increase in the bulk of blood adds to the work of the heart, already overburdened enough. What is wanted is an agent which will act on the two muscular ends of the circulation, causing them to contract, and so to tighten them on the blood-column in the arteries, thus increasing the arterial tension, and with it the pressure on the renal glomeruli; not a mere distension of that arterial system by rapid absorption of fluid from the stomach.

* Since writing the above paper, I regret to state, the disease has again recurred, but in a very slow form, and the girl is still enjoying good health.

The amount of solids in the scanty bulk of urine is in proportion to the oxidising changes, and their estimation may sometimes be indicated.

The appearance of œdema, from the first fulness over the instep up to the most complete dropsy, is ever significant; its progress or arrest, its amenableness to treatment and the opposite, its recurrence, all furnish valuable data. The augmentation of the body-weight by the increasing œdema is worth noting, and is significant.

The effects upon the brain should be especially observed; the troublesome and often terrifying dreams, the loss of the wonted self-reliance, the infirm will, the loss of the power of sustained attention, the caprice and variableness of mood and temper, tell us of the effect upon the brain of an altered blood-supply. In "Middlemarch" George Eliot has sketched vividly, yet with wondrous fidelity, the mental effects of heart disease in old Peter Featherstone, his irritability, his whimsical suspicion combined with artful cunning, his passionateness contrasting with his powerlessness in his last outburst immediately preceding the fatal change, all are true to the life. In more protracted cases the increasing and progressive coma and stupor—the blended combination of anæmia, uræmia, and carbonic-acid poisoning, furnish important prognostic indications. The curious wave-like respiration, "the phenomena of Cheyne," so often present when heart and brain are affected, is of deep import; indicating, as it ever does, a grave and serious condition.

No little effect over the progress of the case will usually be exercised by the line of treatment adopted; and this, the practical outcome of our knowledge, will depend largely on the rational and intelligent comprehension of the case, as a whole, entertained by the medical adviser. Of most vital importance, then, and standing first upon the list of measures in an organ acting so mechanically, is the amount of labour it has to perform. This demands our most careful consideration, and the amount must, if possible at all, be regulated and controlled. And it is the possibility or impossibility of this which makes the means and position of a patient with heart disease exercise so much effect over the progress of the case. The man who must labour or starve is indeed in a grave predicament. The improvement which usually results from even a few days' rest in bed in a hospital ward—a great boon to many of our toilers afflicted with heart disease—testifies markedly to the beneficial effects of quiet in these cases. The wealthy person is also free from many anxieties which exercise no little effect on their poorer fellow-sufferers, and aggravate their condition—"les diverses causes psychiques qui agissent sur l'activité du cœur." The quiet which tends to conserve compensating hypertrophy, or which permits hypertrophy to grow around dilatation (Niemeyer), is of the greatest importance, and exercises much influence on the progress of the case.

The effect of passing lung troubles in adding to the embarrassment of the right heart, and the special liability of the lungs to be affected by slight exciting causes in heart disease, is a subject on which Professor Botkin, of St. Petersburg, lays much stress in his work on the Diseases of the Heart. And though we know nothing of the severity of a Russian winter and the tremendous difference of temperature which exists between their warm rooms and the cold external air—a difference forbidding out-door exercise almost entirely, notwithstanding respirators, &c.—the subject is too important for us to overlook even in our more equable climate. The importance of out-door exercise in maintaining the general health is too great to permit of its being abandoned, and a change of climate in winter may thus be clearly indicated. Where carriage exercise is impracticable, gentle strolls may be substituted when the weather will permit; the rapidly increasing number of parks in our towns admitting of this, even in the cases of inhabitants of our largest cities. This should be insisted on, as long as the physical condition will permit it. Flint has found the downward progress strangely accelerated in many cases after the power to get out of doors has passed away. Pure air is almost as important a factor as nutritive and easily-digestible food in the treatment of heart disease.

The effect of concomitant, coexistent, or intercurrent affections over the heart's excitability is scarcely sufficiently appraised; and the Russian, whose chapter on treatment testifies to his thought and attention to this important branch of the subject, insists strongly on the cure or relief of such conditions. He lays stress upon the treatment of uterine affections, of prostatic troubles, of all conditions indeed which add to the excitability of the heart.

As to the different measures to be adopted in the actual treatment of heart disease, the mode of action of various remedial measures, the suggestions of physiology and of empiricism, &c., it would be out of place here to dilate upon them, even if space would permit. Such as wish to penetrate further into this matter I must refer to my work on "The Heart and its Diseases, with their Treatment."

(To be concluded.)

CASE OF SECONDARY ABSCESS FOLLOWING A STRANGULATED OMENTAL HERNIA, BURSTING INTO THE PERICARDIUM.

BY ROBERT CORY, M.B., B.A., CANTAB.

JOHN A——, a farmer, aged thirty-two, has suffered for ten or twelve years from occasional severe pains in the abdomen, preceded by a swelling in the right groin. The swelling used to disappear spontaneously on lying down. He never consulted anyone about these attacks, and never himself attributed them to hernia.

On the 6th of September, 1873, he had an attack similar to those he had had before, but more severe, accompanied this time by vomiting. He therefore sought advice, and was seen by the gentleman then acting as my *locum tenens*. On the following day the vomiting ceased, but as his bowels had not acted since the attack he was ordered a purgative. On the 8th his bowels acted freely, but the swelling in the groin still continued. On the 9th the pain became more localised in the region of the swelling. From this date to the 16th the swelling gradually increased in size, extending into the scrotum and along the inguinal canal, while a red flush appeared on the skin covering it. On the 16th the swelling burst just over the external abdominal ring, and a quantity of offensive pus escaped having a strongly marked fæcal odour.

Sept. 17th.—I first saw him to-day. The scrotum is full of pus, which freely escapes by the opening when it is raised.

18th.—The scrotum is again full. A counter opening was made in the most dependent part to let the pus drain away.

23rd.—A piece of sloughing omentum, the size of a penny, came away to-day through the anterior opening.

24th.—The redness in the groin is rapidly disappearing, and the constitutional symptoms, which have been severe, are abating.

From this time to Oct. 14th he rapidly improved, both openings having closed. On the 15th he had a truss adapted, and got up for the first time on the 16th. A week after this he was doing light work on his farm, and continued to improve until the 10th of November, when he was seized with rigors and pain in his left side. On examination of the chest, there appeared to be slight dulness at the left base, but nothing marked. From this date he never felt well; he remained in bed for ten days, and then got up, but was again obliged to take to his bed on Nov. 29th. He now had a troublesome cough with slight expectoration, and complained of pains on both sides; his left arm felt numb, and he said he could not keep it warm; there was, however, no loss of power.

Dec. 4th.—He was taken to-day with a severe pain in the cardiac region, which was aggravated by deep inspiration. He seemed very depressed, and vomited occasionally. On examining the chest, there was dulness at both bases, with very indistinct vesicular murmur. The dulness decreased upwards until about midway, where it ceased. At the apices expiration was prolonged, but the sounds were otherwise normal. Just below the nipple on the left side there was a small localised area, in which distinct fine crepitation could be heard. This portion corresponded with the seat of pain. The area of cardiac dulness was increased, but not to any great extent. Heart sounds were weak, but there was no murmur.

5th.—He died suddenly this morning at 6.30 A.M. His

wife stated that the vomiting continued until his death, and that the left arm became quite cold.

Autopsy, thirty-four hours after death.—On removing the sternum, an abscess, the size of a hen's egg, was opened, which had for its anterior wall the conjoint cartilages of the seventh, eighth, and ninth ribs of the left side. The floor of the abscess was formed by the upper surface of the left lobe of the liver; while the diaphragm, covered by the pericardium, formed the upper wall. The pericardium was greatly distended with fluid, measuring 6½ in. in length and 4½ in. in its greatest breadth. On opening the pericardium, it was found to be full of a thin, opaque, milky fluid; the whole internal surface, together with that covering the heart, was incrusted with a layer of flocculent, recently deposited fibrin. At the posterior part of the pericardium, which rested on the diaphragm, there was a small aperture, which communicated with the abscess cavity, through which pus had escaped into the pericardium. The pus in the abscess was thick and creamy. There was very little fluid in the pleura. The left lung was slightly adherent. The lungs were healthy, except being congested at their bases; they were more or less crepitant throughout. The endocardium and valves of the heart were healthy. The liver was healthy, except immediately beneath the abscess, where there was a firm cheesy mass, the size of a pea, triangular in shape, with its base towards the surface; this was situated in the substance of the liver. The omentum formed a band, which extended from the left side across the abdomen, and descended through the right abdominal ring into the scrotum, where it was adherent to the cicatrix of the old wound. There was no peritonitis, but the band of omentum was matted together, so that it could not be spread out at its lower part.

Newchurch, near Manchester.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

DILATATION OF THE STOMACH; KUSSMAUL'S TREATMENT; DEATH; CLINICAL REMARKS.

(Under the care of Dr. WILKS.)

IN speaking of the subjoined case, Dr. Wilks remarked that the subject of dilatation of the stomach has been under discussion by clinical observers and pathologists for some time, but opinions are still divided as to the existence of a primary disease which can legitimately receive this name. The evidence in favour of such a condition has received fresh support from the mode of treatment suggested and successfully carried out by Kussmaul. He has said that in cases of scirrhous pylorus, owing to the retention of food in the stomach, the organ becomes immensely distended, and, by its weight and dragging, aggravates all the symptoms which were in the first place due to the stenosis alone; in fact, this distension in itself, however brought about, would be necessarily accompanied by all the symptoms which are usually attributable to pyloric disease. Thus, in cases where, during life, the symptoms of almost perfect obstruction have existed, the pylorus has been found still to admit the passage of the finger through it. If, therefore, this distension could be overcome, the patient's suffering would be much relieved, and in case of primary dilatation a perfect cure be effected. Kussmaul and some authors believe that this dilatation may, in fact, be the only disease, resulting from ulceration at the pylorus which has been cured, or may arise altogether from a chronic catarrh or dyspepsia paralysing the organ for a time and thus leading to this result. Whether primary or secondary, the dilatation becomes a very important element in the case, and it can be overcome by adopting Kussmaul's plan of washing out the stomach. By so doing a quantity of fermenting food is got rid of, the mucous membrane is cleansed, and the stomach will immediately contract. By daily adopting this method the organ is never allowed to become again in like manner distended, and a slow return to its natural size occurs. In two or three cases of scirrhous pylorus treated in this manner in Guy's Hospital, the relief afforded to the patient was very great; and in the case below mentioned, where the cause of obstruction was a curable ulcer, some chance of a perfect recovery seemed reasonable. Under these circumstances, an accurate diagnosis is not necessary before the adoption of the treatment; for if a pyloric tumour be found it may be used with advantage, and if no disease can be felt a still further success may be anticipated. The condition requiring it is generally well made out by an examination of the abdomen. The swelling is full and soft; and after exposure to the cold and manipulation the stomach is found to swell up and contract under the hand. It may sometimes be grasped like a hard india-rubber ball, and if struck or shaken loud splashings are produced. The outline is often quite visible, there being a depression of the abdomen at the epigastrium, and then below this lies the protuberant stomach, its lesser curvature above and the greater curvature well defined below, reaching sometimes to the pelvis.

The following notes were taken by Mr. Wingate K. Johnston.

The patient, a dock labourer, aged sixty-three, was admitted Feb. 11th, 1874. He had always enjoyed good health up to the middle of November last, when he began to lose flesh rapidly, and often to bring up his food a few hours after meals. For some months previously, however, he had occasionally suffered pain at the epigastrium after food. About Christmas the abdomen became swollen, the pain near the umbilicus more severe, and the vomiting increased, although as a rule the patient did not vomit more than once during the twenty-four hours, and that generally about half an hour after getting into bed at night. He used to bring up "half a pailful of brownish-looking fluid, with some frothy-looking material floating on the surface." Considerable relief was always afforded by vomiting. He had been in the habit of taking two pints of beer a day, but rarely drank spirits.

On admission he was pale and emaciated, and had an anxious expression; the skin was hot and dry; nails curved; conjunctivæ jaundiced; tongue pale and flabby; teeth ground down; appetite good; but nearly every day the patient brought up a large quantity of dark-brown fluid mixed with a frothy material. The fluid teemed with vibriones, but no sarcinæ were detected.

On examination a large swelling, occupying the whole of the front of the abdomen, was detected when the patient lay on his back. The swelling was tympanitic, except in the right hypochondriac and iliac regions, but when he turned on to his left side these parts also became tympanitic. The lesser curvature of the stomach extended from the junction of the ninth and tenth rib-cartilages on the left side across the abdomen to the right lumbar region, about an inch and a half above the umbilicus. There was no palpable thickening of the pylorus. On exposure and on manipulation the stomach could be felt to contract. The lungs and heart were healthy; urine normal.

Feb. 13th.—Stomach to be washed out daily; contents of stomach were removed by stomach-pump—two pints two ounces of a clear, watery fluid, with a thick brown sediment. No sarcinæ to be detected; patient expressed great relief afterwards.

14th.—Feels much better; stomach not so much distended; has not been sick again. Ordered brandy-and-egg mixture, one pint of beef-tea, one pint of milk, and eight ounces of bread.

17th.—Stomach washed out; feels much easier; has not been sick again; sleeps well; abdomen not so tense nor resonant.

19th.—Complains of pain at umbilicus; is troubled with flatus rising into his mouth.

25th.—Is not so well; was sick yesterday after his dinner; stomach emptied daily; bifurcation of aorta distinctly felt; vertebræ more prominent on left side.

27th.—Was sick again yesterday, brought up two pints; bowels not open; tongue furred. Ordered half a grain of extract of nux vomica and one grain of extract of aloes three times a day.

The stomach was washed out daily, and the patient improved for several days; but on May 8th the house-physician was called at 7.30 A.M., and found the patient insensible, and suffering from twitching of the muscles of the arms, hands, and lower jaw; at 11 A.M. he was sensible, and said he felt well, but at 3 P.M. he again became insensible, in which state he continued till his death at 8 P.M.

Post-mortem examination.—Brain healthy, with the exception of slight changes in the middle cerebral arteries. Lungs emphysematous. Larynx, heart, and peritoneum healthy. Œsophagus not dilated, but the epithelium was digested up to the larynx. The stomach was much dilated, and filled the greater part of the abdominal cavity. The omentum was matted at the greater curvature, which lay just above the pubes. The lesser curvature was considerably pulled down, so as to leave a space between it and the anterior margin of the liver, in which the jejunum bulged forward, covered only by a thin layer of gastro-hepatic omentum. A small hard nodule, of whitish colour, was visible at the pylorus, and other nodules were felt at the upper part of head of the pancreas, which was situated just above the jejunum. The pylorus did not appear to have been dragged upon to any extent. The whole of the anterior part of the left hypochondriac region was occupied by the stomach. The spleen was pushed up high in this region. On lifting the stomach forwards, the intestines were seen to be behind it all closely contracted. The colon was about the size of the thumb, and lay in the meso-colon behind the stomach. A pint and a half of slate-coloured fluid was withdrawn from the cavity of the stomach, and about another pint remained behind. On opening the viscus, the coats did not appear to have suffered any alteration; the muscular coat was of fair thickness, though, taking into account the size of the organ, it was perhaps rather hypertrophied. At the pyloric end there was an excavated ulcer, about two-thirds of an inch in diameter, with thick, hard edges; it was not unlike an old chronic ulcer which had healed, rather than the excavation of a cancerous mass. The deeper part of this, which extended round the anterior wall of the pyloric cavity, and a little along the lesser curvature, was composed of a firm, whitish growth, which showed well-formed epithelial cells of a scaly type. The pylorus would only just admit the tip of the little finger. Some tissue about the head of the pancreas was also changed into a whitish growth, and two small hard white glands existed near with similar disease. Spleen small, firm, and pushed upwards. Kidneys weighed eight ounces; capsule adherent, surface granular, and cortex wasted.

GREAT NORTHERN HOSPITAL.

EXCISION OF KNEE-JOINT, FOLLOWED BY AMPUTATION; RECOVERY.

(Under the care of Mr. GAY.)

FOR the notes of the following case we are indebted to Mr. Young, the house-surgeon.

Henry K——, aged twenty-three, was admitted March 2nd, 1874, for disease of the knee-joint of about two years' duration. He was in the army when the disease began, and was sent to the military hospital, whence he was discharged after two months' treatment as unfit for further service. He then went into a metropolitan hospital, where he remained seven weeks, and subsequently into a parochial infirmary. The disease during this time made rapid progress, and, on admission into the Great Northern Hospital, appeared to admit of no remedy but excision or amputation, of which the former was preferred.

The patient was much emaciated and hectic; his temperature high, pulse quick. The knee-joint was much swollen, the skin over it smooth and glistening, and the seat of intense pain, aggravated at night, and exquisitely sensitive to touch. He suffered from painful twitchings of the whole limb at times, especially at night and during sleep, so that it was difficult, by any narcotics, to procure him any prolonged or useful rest. The knee was flexed at an acute angle on the thigh.

Mr. Gay excised the joint on the 4th. The bones were brought into exact apposition without any strain on the hamstring tendons. The operation was followed by entire exemption from all pain, and with promise of immediate union and rapid recovery. Six days afterwards, however, the spasmodic twitchings of the limb returned, but with much greater severity than before the operation, and became so incessant, distressing, and uncontrollable, notwithstanding remedies of all kinds which were given and applied to counteract them, that Mr. Gay, with the concurrence of his colleagues, Mr. William Adams and Mr. Carr-Jackson, determined on amputation, which was done on the 5th of April. During these twitchings the muscles of the thigh and hamstring tendons were called into action, at times more violent than at others. At one time it was thought that they were due to inflammation of the theca of the peroneal nerve, for there was tenderness along its course, and leeches and blisters were applied, but without effect. At another, matter was suspected deep in the popliteal space, and an exploratory puncture was made, but in vain. All kinds of narcotics were employed, but without any positive results. It was not deemed necessary to divide the hamstring or Achilles tendons, since there was no traction on them excepting during the spasms, and then it was general, whilst the rapid failure of health did not justify further delay.

The amputation was followed by immediate and complete relief, and the patient made a rapid recovery. In a fortnight the flaps had completely united, with the exception of one small sinus, and by the 20th of May he left the hospital for the convalescent home.

The disease was the old "white swelling"—Brodie's pulpy degeneration of the synovial membrane, with removal of cartilage at the articular edge of the bone—histologically well described by Barwell. The thickening was enormous, and involved other tissues around the synovial membrane, even muscular tissue; so that the whole of the morbid material was not removed, although the amputation was carried higher up than would otherwise have been necessary. This did not, however, in any way interfere with the healing process.

The pulse and temperature, during the course of the case, after the excision, were as follows:—May 4th: Pulse from 116—120; temperature 99½°—100°. 6th: Pulse from 112—120; temperature 102½°. Then both began to fall until the 15th (the day of the amputation), when the pulse was 96, and temperature 98½°. After the operation both rose gradually, and culminated on the 21st, the pulse being on that day from 112—136, and the temperature 103°. Rapid subsidence followed until the 26th, when the pulse dropped to 112, and the temperature to 99°.

It was decidedly a strumous case, but without the usual history.

The case, Mr. Gay remarked, was one of considerable interest—indeed, as far as his knowledge and experience went, unique. The bones, after resection, were in close apposition, but the union was only effected by a kind of gelatinous material without trace of osseous deposit. The cause of the spasms could not be discovered; all the nerves seemed healthy, and there was no apparent impaction of soft parts between the bones. There was a small quantity of healthy pus behind the bones, at the site of their junction, but the surfaces of the bones themselves were free from diseased action.

THE HOSPITAL FOR WOMEN, SOHO SQUARE.

CASES OF OVARIOTOMY.

THE following is a continuation, from p. 727, of the series of cases of ovariotomy performed at the above hospital during the past year.

CASE 7. *Multilocular ovarian disease; operation; recovery.*—Maria W——, aged forty-five, single, servant, was admitted under the care of Mr. Scott on the 12th of May. The catamenia had always been regular, though scanty and painful. The patient stated that she had noticed the abdomen somewhat full for the last eighteen months, but for the last seven months only had she observed a distinct swelling in the lower abdomen, which had gradually increased to its present size.

On admission, the abdomen was found distended, and occupied by a soft, distinctly fluctuating tumour, reaching up to the ensiform cartilage. The girth at the umbilical level was 37½ in. There was dulness on percussion over the whole tumour, and resonance in both flanks. Per

vaginam, the cyst was felt indistinctly on deep pressure in front of the cervix. The uterine sound passed 2¼ in. in the normal direction.

On the 24th of May Mr. Scott performed ovariotomy. The cyst was found to be connected with the right ovary, was free from adhesions, and contained twelve pints and a half of dull-white, thick, gelatinous fluid. The pedicle, of fair length, and about the thickness of the finger, was clamped, divided by the actual cautery, and carefully dropped into the abdomen. The wound was brought together with deep silk sutures, dressed with Lister's oil silk and lac plaster, and supported with broad strips of plaster, and an abdominal bandage placed over all. The cyst weighed 2½ lb.

The patient made an excellent recovery, and was discharged cured on the eighteenth day after the operation.

CASE 8. *Multilocular ovarian tumour; death.*—E. G——, aged fifty-three, single, was admitted under the care of Dr. Edis on July 7th, 1873. She was first seen as an out-patient in December, 1870, and then said that she had noticed a swelling in the abdomen for about ten or twelve months, so painful at night that she could not sleep. On examination there were noticed two tumours, the one on the right dull, tense, fluctuating, that on the left side firmer and denser. Girth round umbilicus 31 in.; round abdomen at level of anterior superior spinous processes 32 in. On vaginal examination the uterus was found small and mobile. The tumours seemed closely attached to, though not springing from it. The one on the right projected lower into the pelvis than the one on the left, and the latter seemed much firmer in structure. She refused to come in, though she attended as an out-patient till May, 1872. She continued much the same till her admission, the abdomen gradually increasing, suffering occasionally from attacks of pain in the stomach and vomiting.

On admission the measurements were, at the umbilicus, 36 in.; at the level of the anterior superior spinous processes, 37 in., showing great increase. She was very weak; could not take any food; pulse very feeble; temperature 98°; body much emaciated; tongue dry and furred; urine acid, sp. gr. 1018, no albumen.

The patient was altogether better on the 11th, and on the 12th Dr. Edis performed ovariotomy. The incision had to be made very long on account of the tumour being so multilocular, and the fluid too thick to escape by the canula of the trocar. There were numerous adhesions to the intestines, to the mesentery, and to the pelvis. These were separated with great care, and the hæmorrhage, which was very profuse and difficult to arrest, was stopped as soon as possible. This, however, prolonged the operation, and the patient got very weak. Brandy was given frequently by the mouth, and towards the end of the operation a brandy and beef-tea injection was administered per rectum. The poor woman, although everything that could be done was done, never rallied, and died very shortly after the operation was over, from shock and loss of blood.

Post-mortem examination.—THORAX: Heart and lungs healthy.—ABDOMEN: Some dark-coloured blood was seen which had evidently escaped from some of the many adhesions. The uterus measured 2½ in., and was with some difficulty separated from a hard, irregular, and malignant mass, which occupied the cavity of the pelvis, and was more or less intimately connected with the uterus, rectum, and surrounding parts.

LEICESTER INFIRMARY.

ANEURISM OF THE LEFT POPLITEAL; FORCIBLE FLEXION FOR SIX HOURS; CURE.

(Under the care of Mr. BENFIELD.)

THE following case is of interest, as showing the value of forcible flexion in some cases of popliteal aneurism. It will be seen, moreover, that the patient had previously suffered from aneurism of the right popliteal artery, which was cured by the same means.

The patient, a man aged thirty-eight, was formerly in the army, and served in the American War. Shortly after returning home, he had an attack of rheumatic fever, but, with this exception, had been free from illness, and his general health on admission, Feb. 7th, was good. Four years ago he was under Mr. Benfield's care with an aneurism of the right popliteal artery. This was treated by forcible flexion of the limb maintained for seven hours, and the result was a complete success. The pulsation was immediately arrested, and a rapid subsidence of the tumour ensued; and since, the limb has never caused patient the slightest inconvenience. There is now no trace of a tumour to be felt.

On admission, a small tumour, which pulsated forcibly, was felt in the left popliteal space. On applying the stethoscope, a distinct bruit was heard. Firm pressure on the artery above the tumour at once arrested the pulsation and bruit.

Jan. 17th.—At 11.15 A.M. a flannel roller was applied to the leg; the leg was now flexed upon the thigh, and the latter upon the abdomen. The leg and thigh were firmly bandaged together so as to maintain forcible flexion, and heavy sandbags were also employed to keep the patient from rolling out of position. This procedure occasioned very great pain, and a quarter of a grain of morphia was given subcutaneously for its relief. At 5.20 P.M. (six hours and five minutes from commencement of flexion) patient could bear the pain no longer, and the bandage was removed and the leg gently straightened. No pulsation nor bruit was now discernible. Patient complained of being chilly, and the foot of the affected limb was decidedly colder than its fellow. The limb was now encased in cotton-wool, a pad of lint placed in the popliteal space, and a flannel bandage applied. It was then placed straight on a pillow.

18th.—Patient has slept well, and suffers no pain.

The aneurism was now practically cured, but for the sake of safety the pad and bandage, together with rest in bed, were maintained for ten days. The man was then allowed to get up and take exercise, which occasioned no pain or inconvenience. He was thus kept under observation till Feb. 7th, when he was discharged cured.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 5TH, 1874.

DR. PEACOCK IN THE CHAIR.

A REPORT from the Morbid Growth Committee on Mr. Marsh's specimen of Polypoid Growths of the Vagina, Bladder, and Uterus, in a young child, was read. The reporters, Messrs. Arnott and Beck, considered the growth as the result of an overgrowth of the connective tissue of the part.

Dr. WICKHAM LEGG brought forward a case of Xanthelasma Multiplex occurring in the practice of Dr. Andrew, of St. Bartholomew's Hospital, some years ago. The patient, a woman, had been jaundiced for two years, and there were xanthelasmic patches on the eyelids, nose, ears, elbows, palms of the hands, and the soles of the feet, and a few spots on the gums. Whilst under treatment she passed a hard substance by the bowel, and the jaundice disappeared. Dr. Legg referred to a case reported by Virchow in which this condition occurred without jaundice having been present.

Dr. LEGG then showed a specimen of Sarcoma of the Stomach from a girl aged seventeen. He had no clinical history of the case; the patient died the day after admission to St. Bartholomew's Hospital. The stomach was found adherent to the liver, and the growth infiltrated the liver and the omentum and the pyloric half of the stomach. The growth was a round-celled sarcoma. He had not been able to find any case of malignant growth of the stomach at this early age. A case referred to in Dr. Walsh's book on Cancer, of scirrhus of the pylorus in a child of five, he found was not carcinomatous, the word being only used by the writer as meaning a hard, tough infiltration.

Mr. HOWARD MARSH showed the Spermatic Cords from a man who died of hydatid disease of the abdomen. In each cord there was a hydatid tumour, the size of a hen's egg, below the external abdominal ring, and simulating a hydrocele. He thought no case similar to this had been recorded. In reply to Dr. Cayley, who asked if there was any hernia,

Mr. Marsh thought there was on one side, but not on the other; the body had been brought into the dissecting-room.

Mr. NUNN showed a Tumour attached to the transverse processes of the cervical vertebræ. A man, aged seventy-three, had had a tumour on the left side of the neck for twenty years. He had had slight paralysis of the left side of the face and upper extremity for twenty-four years. At the autopsy the upper cord of the brachial plexus was found involved. The growth was a spindle-celled sarcoma. The specimen was referred to the Morbid Growth Committee.

Mr. MCCARTHY showed a Duodenum ulcerated, removed from a child who died after a very severe burn. The child had vomited blood, and passed it by the bowel. The ulceration was below the margin of the pylorus. A second ulcer had perforated the duodenum. There was no escape of fluid into the peritoneal cavity. This ulceration following a burn was comparatively rare, and few cases are recorded in the Transactions. He had examined many cases of burns, and had only met with two instances. In reply to Dr. Cayley, Mr. McCarthy said he was unable to say where the ulceration began, the coats of the intestine were so destroyed. All the cases were in children under ten.

Dr. DICKINSON showed an Ovarian Tumour removed from a child, aged ten, at the post-mortem examination. About twelve months ago the child complained of pain in the right side and lower part of the abdomen, and then a small swelling the size of an egg was noticed. In six months' time this was as large as a small apple. It then rapidly increased. When first seen the umbilical girth was 25 in., and she was in much pain. The diagnosis was difficult, and it was at first supposed to be a malignant growth of the kidney. She was removed from the hospital, and on her return some months after the umbilical girth was 27½ in. She died soon after of peritonitis. A tumour of the right ovary was found weighing 5½ lb. It contained hair, bones, &c. All the other organs of the body were healthy. The child had never menstruated.

Dr. HARE asked if there was anything like skin in the tumour? Were the hairs loose or adherent to any substance specially?

Dr. DICKINSON said the hairs were very fine, and not attached to anything.

The specimen was referred.

Mr. NORTON showed a Gummatous Deposit of the Aryteno-Epiglottidean Fold extending into the larynx. There was also ulceration of the pharynx. The specimen was removed from a patient who died shortly after admission into the hospital. Mr. Norton referred to two cases of syphilitic ulceration of the larynx causing œdema of the glottis. Tracheotomy was performed with success. He thought the patient's life might have been saved in this way.

Dr. LEARED showed a Bothriocephalus Latus. It was twenty feet long, and was a rare specimen. The head was not discoverable. It was passed by a patient who had lived some time in America, and who had eaten much fresh-water fish.

Mr. FLETCHER BEACH showed a Bladder with a pouch attached to it, from a child aged one year and five months. The child had passed thick purulent urine. At the autopsy the bladder was found full of a whitish puriform fluid; at the base a small pouch full of the same kind of fluid; an opening, through which a probe passed, connected the two. From the right kidney, which was enlarged, two ureters came, one opening into the pouch, the other into the bladder in the normal position. The ureter from the left kidney was normal.

Mr. BEACH then brought forward a case in which there was Absence of the Thyroid Gland in a child aged two years and six months. There was no syphilitic history, nor was either parent addicted to drink. The child had not grown since it was a year old. It was 22½ inches high; the head large and flattened at the top, and the anterior fontanelle open; countenance vacant; mouth open, and tongue projecting. On each side of the neck there was a supraclavicular swelling. There was no beading of the ribs; the abdomen was distended. The child lay in bed crying; its voice was hoarse. Over the apex of the heart there was a blowing murmur. The child died of exhaustion from diarrhœa. At the post-mortem examination no thyroid gland was found. The heart weighed 1½ oz.; the brain 22½ oz., the average weight of the brain of children of that age being 32 oz., the minimum weight 29 oz. The supraclavicular swellings were due to a collection of fat.

Dr. LANGDON DOWN said that the cases of sporadic cretins were not examples of the cretins of Europe, the valleys of the Alps, &c. All the cases that he had seen differed in this, that they became dwarfed at the second dentition. The cases so resembled one another in mind and body that there must be some common cause, and so lime as a cause might be put out of the question. His cases had come from various parts of England. He believed the condition was caused by the effects of alcohol at the period of genesis; the parents need not be chronic drunkards, but under the influence of drink at the time. In four cases he had positive evidence of this. He would like to know if the skin of the child had been unusually close in texture, and if the hair was sparse.

Dr. T. BALLARD thought that if these cases were traced out they would be found to have suffered from diarrhœa for a long time, causing lesions of the intestine, and so the wasting, &c. He thought both the alcohol and the lime theories were wrong.

Dr. ELLIS thought that arrest of development was easily produced by alcoholism; and referred to a case brought before the Society, where a woman had had several healthy children both before and after one whose development was much arrested. At the time of its conception the father had given way to drink, but was reclaimed before other children were born.

Mr. MORRANT BAKER asked Dr. Down if he had noticed an absence of the thyroid in his cases. The thyroid was well developed in a case he had seen in St. Bartholomew's. Cretinism had nothing to do with the absence of the thyroid.

Dr. L. DOWN said that in some of his cases the thyroid was absent; but in all the supraclavicular swellings were present, which he had supposed vascular.

Mr. F. BEACH, in reply, said the skin was coarse and rough. There was no history of drunkenness, and no diarrhœa before admission.

Mr. GODLEE brought forward a case of Multiple Melanosis. A labourer, aged fifty-eight, previously healthy, twelve months ago noticed a sore on one leg; four months after a swelling in the right groin. This increased; and there was loss of power in the leg. There was a large tumour movable in Scarpa's triangle, which was removed by Mr. Marshall; it was the size of an orange, and showed lymphatic structure, and was probably an enlarged gland. Twelve days after the man got drunk, and died comatose. Two tumours were found in the grey matter of the brain, and one in the medulla. In the heart there were two tumours in the columnæ carneæ; in the jejunum a number of black spots, covered by mucous membrane. The growths were spindle-celled sarcomas. In the brain tumours the cells were round.

Dr. PEACOCK showed a Dissecting Aneurism of the Aorta. An actor, aged sixty-one, on getting on the top of an omnibus, was seized with difficulty of breathing and pain in the region of the heart. He was brought to St. Thomas's Hospital at 5.30 P.M., and died at 10 in increased pain. The internal and middle coats were ruptured at the beginning of the ascending aorta, and were dissected off up to the origin of the aorta and down to the common iliac arteries. The blood had escaped into the left pleural cavity.

Dr. PEACOCK also exhibited a Perforation of the Bowel in Typhoid Fever. A young man, aged seventeen, was admitted, after three days' illness, with diarrhœa; two days after he became delirious; the abdominal symptoms and cerebral disturbance increased, and the temperature rose. At the autopsy there was marked peritonitis; two or three feet above the ileo-cæcal valve there was an ulcer which had perforated the intestine; there were only two or three Peyer's patches enlarged; there were no typhoid spots. The case was remarkable in that there should be only one ulcer, and that perforating. A similar case had been recorded.

Dr. PEACOCK then showed a Malformation of the Heart from a child ten months old, who became cyanotic, and died in convulsions. The aorta arose from both ventricles; the arrest of development was such that there was one auricle, one ventricle, and one artery. A ductus arteriosus remained, which probably led to a pulmonary artery. The left auricle was imperfectly developed, the pulmonary vessels entered

it, and the auricle opened into the right auricle. The specimen was sent him after its removal, and he did not know what the relations were of other vessels when *in situ*.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 6TH, 1874.

DR. E. J. TILT, PRESIDENT, IN THE CHAIR.

THE following gentlemen were elected Fellows of the Society:—Alfred Lewis Galabin, M.D., Alfred Boyd Hopkins, M.R.C.S., George Alex. Simpson, M.D., and Reuben H. Warn, M.R.C.S.

The report by Dr. SAVAGE and Dr. ROUTH on Dr. Willing's specimen was read. The fœtus was 11 in. long; nails well formed; skin pale red; hair on scalp dark in colour; cerebral convolutions and valvulæ conniventes well developed; meconium in the intestines; lungs, with heart attached, and also in pieces, floated freely in water; heart well formed; uterus, ovaries, and vagina well formed; eyelids non-adherent; iris well developed; pupil moderate in size; no membrana pupillaris. The age of this fœtus was believed to be between the sixth and seventh month.

The PRESIDENT called attention to the point of interest in this case—viz., that a child apparently only five months and a half old had cried lustily, and lived forty-four hours. The report did not confirm this, the age being nearer seven than five months.

Dr. J. HALL DAVIS exhibited a Tapering Metallic Tubular Speculum, manufactured by Arnold after Dr. Davis's design. It has a trumpet-shaped external opening, the width of the speculum gradually diminishing from this to its smaller uterine aperture. The tube is suitably beveled off at its uterine end, the edges are carefully rounded, and, when the instrument is accurately made, no groove exists where secretions could lodge. It is made in three most useful sizes, and produced in two combinations of metals—viz., one nickle-plated on copper, and one silver-plated on copper, and this latter, as a defence against the action of nitrate of silver, is electro-gilt also for two inches of its uterine end. The advantage this speculum presents over Ferguson's glass silvered speculum is its non-fragility and its tapering form. The lengths vary from 5⅞ in. in the largest to 5¼ in. in the smallest. The diameters of the outer opening are 2⅞ in. in the largest and 2¼ in. in the smallest. It need be replated only at long intervals at small cost.

Dr. ROUTH thought one disadvantage would be that it would tarnish readily, and would not resist the action of nitric acid, bromine, acid pernitrate of mercury, &c.

Dr. DAVIS, however, replied that this disadvantage did not exist in reality.

Dr. H. SMITH objected to the metal being turned inwards at the vaginal end, as it formed a gutter in which discharges would lodge. This would be a great disadvantage in hospital practice, and might prove a source of infection from one patient to another.

Dr. CLEMENT GODSON exhibited a specimen of Twin Abortion, in which one embryo, five inches long, was much emaciated, and the other presented no trace of head or upper extremity. Though apparently of no more than three months' development they were not expelled from the uterus until three months and a half after impregnation. There had been no opportunity of examining the placenta. In Dr. Martin's "Atlas" a monstrosity very similar to this was figured. He thought it an interesting question whether the development of the head and upper extremities had been suddenly arrested, or whether they had become absorbed during the time which had elapsed between the cessation of vitality and the expulsion from the uterus.

Dr. JOHN WILLIAMS remarked that the appearances presented by the upper surface of the trunk of the acephalous fœtus seem to point to amputation as the cause of the malformation. Near the posterior margin of this surface, and in the situation of the spinal column, is a small, hard, firm projection. This appears to be continuous below with the vertebral column, and is probably the amputated extremity of it, which has remained uncovered by soft tissue. The posterior margin of this surface is somewhat raised and round, and presents much the same appearances as are found at the margin of a recently healed wound.

Dr. Godson and Dr. Williams were requested to draw up a further report.

Dr. BARNES exhibited, for W. Kesteven, jun., the Upper Portion of the Trunk and Head of a Fœtus, where the arm, face, and a foot had presented. The right hand and arm were projecting from the vagina, the left being immediately within, and between them the face, presenting posteriorly, and between the pubis and the chin the left foot could be felt. Whilst preparing to turn, the child was suddenly expelled, dead. This was explained by the fact of the total deficiency of the occipital bone. Extending backwards from the head was a large soft bag, consisting of the scalp, the meninges, and the brain. Dr. Barnes remarked that the chief point in this case was the difficulty in making a diagnosis, on account of the bag supplementing the head.

Dr. H. SMITH suggested that a further report on the specimen should be presented to the Society.

The PRESIDENT requested Dr. J. Williams and Dr. Godson to do so.

Dr. J. C. HAYES exhibited a Carcinomatous Tumour, originating, he thought, in the broad ligament, which, according to some anatomists, was properly recognised as an expansion of the uterus. The patient, aged between thirty and forty, was admitted in a very emaciated condition, almost moribund. No history was obtained. After death an irregular, semi-elastic tumour, somewhat larger than the fœtal head at term, was found in the right iliac fossa. The bony tissue, as far back as the vertebræ, was superficially infiltrated with the morbid growth, which extended up between the layers of the broad ligament to within a short distance from the uterus and the ovary. These were quite intact, and the pelvic, lumbar, and inguinal glands were only slightly enlarged, without being diseased. The microscopic appearances of the tumour were those of medullary cancer.

The PRESIDENT inquired in what way the bone was involved.

Dr. BARNES asked if there was any evidence of cancer in the other organs.

Dr. SAVAGE thought there was no reasonable objection to the view taken as to the cellular origin of the tumour, cancer being the offspring of cellular tissue or its allies; but might not the tumour have commenced in the bone? The uterus appeared to be free, adherent, but not involved. What was the state of the bony surface, &c., to which it so firmly adhered? Was it simply denuded, absorbed away by the pressure, or actually involved? The broad ligament, considered as a uterine prolongation or offshoot, was an idea of Rouget's, which was abandoned long ago. The question of gastrotomy in these cases was worth considering.

Dr. HAYES explained that the bone presented the appearance of caries, being honeycombed.

Dr. SQUAREY had seen cancer originating in the glands, and extending to the broad ligament.

The PRESIDENT requested Dr. H. Smith and Dr. Squarey to report upon it.

Dr. E. COPEMAN, of Norwich, read a paper on

STATISTICAL AND PRACTICAL REMARKS ON CONSULTATION MIDWIFERY IN PRIVATE PRACTICE.

His remarks were limited to consultation cases only, most of them being of an unusually severe or complicated character. The total number amounted to 216, of which 198 recovered and 18 died, a proportion of deaths to cases of 1 in 12. There were 14 cases of craniotomy, 1 death; 10 of convulsions, 1 death; 78 cases where the vectis was employed, no deaths; 23 of version, 5 deaths; 6 of forceps, no deaths; 12 of placenta prævia, 1 death; 7 of previous separation of placenta, 2 deaths; 19 of retained or adherent placenta, 2 deaths; 28 of post-partum hæmorrhage, 1 death; 7 cases of twins, 1 maternal death; 2 of ruptured uterus, 2 deaths. Craniotomy may be regarded as a safe operation if not too long delayed. The crotchet he regards as a more or less dangerous instrument, and often very ineffective for accomplishing the object for which it is employed. He prefers the blunt hook. Twelve of the version cases were performed on account of placenta prævia. The vectis he looks upon as a most valuable and efficient instrument, succeeding even where forceps had failed, being easier of application than the forceps, less formidable in appearance, to the attendants as well as to the patient, very seldom occasioning rupture of the perineum or injury to the maternal soft parts.

Dr. BARNES remarked that the great and only fault of the

paper was its extreme brevity. It scarcely afforded scope for discussion, as the conditions necessitating treatment were not given. There were two points worth noting: first, his preference for the vectis over the forceps; and, secondly, there were two deaths from hæmorrhage. This ought never to happen if local treatment were regarded as the necessary complement to other remedies, and used at the proper time. The vectis was a lever and must remain so; it cannot be, strictly speaking, a tractor; we may get the head down by pressing against the pubis. However it could be substituted for the long forceps he could not understand, unless the handles were pushed into the vagina. When the head was in the pelvis anything would do to effect delivery, uterine action being set up by the irritation or interference; and the head being expelled, no tractile force was required, mere dislodgment of the head from an improper position being all that was requisite, and labour goes on at once. The vectis may do as well as the forceps in some cases where there is a want of adaptation of the head to the pelvis, but the vectis can accomplish less than the forceps, the latter being far better in most cases.

Dr. SAVAGE would have been glad to have heard more about the treatment of convulsions, but nothing was said in the paper. The results seemed unusually satisfactory. It was a pity the treatment was not given.

Dr. EDIS thought that in the cases given the vectis had been resorted to where ordinarily forceps would have been applied by most practitioners; and, indeed, the sooner forceps came to be considered as aids to labour, supplementing defective uterine expulsion by traction, in place of their application being looked upon as a formidable operation to be avoided as long as possible, the better for everyone concerned.

Dr. HAYES thought that the vectis lacks compressing force; it can only change the direction of the head. It was a question whether craniotomy had not been performed where a timely application of the forceps might have obviated the necessity. Statistics without details were practically useless.

Dr. WILTSHIRE presented to the notice of the Society a Vectis, procured from Dr. Copeman's instrument maker at Norwich. He (Dr. Wiltshire) stated that he had gathered from Dr. Copeman's book that he regarded the instrument strictly as a tractor, and not as a lever. It was evidently a favourite with Dr. Copeman, as shown by the large number of cases in which he had used it, and probably in his hands was more efficient and safe than it was likely to be in those of others.

Dr. BASSETT, of Birmingham, read a paper

ON THE PROPRIETY OF ADMINISTERING IRON DURING PREGNANCY AS A PREVENTIVE OF POST-PARTUM HÆMORRHAGE.

Regarding pregnancy as nature's highest physiological work, and one that ought to go on without trespassing on the domain of pathology, he had been led to observe that those who had severe floodings during labour were uniformly out of health, weak, dyspeptic, nervous, listless, and evincing an aversion to animal food. The tone of the muscular system was impaired, and the blood in a watery condition, leading to irregular or feeble contraction of the uterus, and hæmorrhage as a consequence. Iron in these cases had proved, in his experience, of great service in preventing post-partum hæmorrhage, combined with potash where the urine was defective, or with soda if the liver seemed to be sluggish and the skin sallow, or with hydrochloric acid if the digestion was weak.

Dr. BARNES asked if any of the Fellows had ever seen any reason to suppose that premature labour had been caused by the administration of iron? He thought we had not sufficiently ascertained the changes and diminution of vital force induced by pregnancy. A series of changes of a most important kind occurred, and if we only understood these we might preserve our patients from the consequences. As a rule, pregnant women did not place themselves under treatment. He alluded to an instance where a pupil of his had given iron to a pregnant woman, and was in consequence accused of intending to produce abortion. Dr. Barnes himself had given it in dozens of cases, and had never witnessed any ill consequences or instances in which abortion could be traced to its administration. He thought iron might safely be given where anæmia was present during pregnancy to improve the patient's condition, and lessen the risk of hæmorrhage during parturition.

Dr. SABOIA, of Rio Janeiro, read a paper on a New Method of Operating for Conical Cervix and Contracted Os Uteri. A silver suture was passed completely through the cervix. The wire was drawn out by means of forceps from the os uteri, divided, and the ends tied on either side and allowed to work their way out, the wire being twisted and so tightened every eight days. They remained in one month, when the remaining tissues were divided by means of a bistoury.

Dr. TILT thought that division would have been better in the ordinary way, the risk being less and the advantage greater.

Dr. EDIS concurred with the President that it was hardly worth while making such a tedious operation, extending over a month, when it might have been done equally well and more satisfactorily in a few minutes by a slight incision.

Reviews and Notices of Books.

Animal Locomotion; or Walking, Swimming, and Flying. By J. BELL PETTIGREW, M.D., F.R.S., &c. Second Edition. London: H. S. King and Co.

FEW works of modern date have attracted a greater share of attention in the scientific world than that concerning which we propose to offer a few observations. "Animal Locomotion," like all works containing original thought and advanced views, has been inordinately lauded and ruthlessly blamed. This is the fate of nearly every work destined to take a permanent place in our literature. Dr. Pettigrew, with characteristic courage, defends himself against the reviewers, and, so far as we can judge, has succeeded not only in holding his own, but in fairly turning the tide against them. (Vide *Athenæum* for Feb. 14th and 28th, *Nature* for Feb. 12th and 19th, and the *Edinburgh Medical Journal* for March, 1874.) That Dr. Pettigrew's new work possesses real merit, and is much appreciated at home and abroad, is proved by the fact that a second edition has been called for within a few months of its publication, that it has been translated into French, and is being translated into German. Our chief object in noticing the work is to defend our countrymen, and especially the profession, from having their discoveries quietly appropriated by continental investigators who frequently write at long intervals after them. This was the case with Goodsir, Gulliver, Bennett, Carter, and many others we could name. It has become the fashion of late years (with humiliation be it said) to receive no new doctrine unless it takes a trip to the Continent and returns to us in a continental dress. Dr. Pettigrew's very striking and original views on flight are having the advantage of a continental tour, and return to us with a new name affixed—viz., that of the well-known physiologist, Professor Marey. There is something fundamentally wrong in all this. Dr. Pettigrew fully described and delineated the figure-of-8 and waved movements made by the wing in flight in 1867. Professor Marey did not write on the subject till 1869. Dr. Pettigrew lodged a reclamation with the Academy of Sciences, Paris, claiming priority of discovery; and Professor Marey, in a letter addressed to that learned body in reply to Dr. Pettigrew's reclamation, fully admitted his claim. The subjoined extract from Professor Marey's letter, published in the *Comptes Rendus* of May 16th, 1870 (p. 1093), clearly shows this:—

"J'ai constaté qu'effectivement M. Pettigrew a vu avant moi, et représenté, dans son mémoire, la forme en 8 du parcours de l'aile de l'insecte; que la méthode optique à laquelle j'avais recours est à peu près identique à la sienne. . . . . Je m'empresse de satisfaire à cette demande légitime, et je laisse entièrement la priorité sur moi à M. Pettigrew relativement à la question ainsi restreinte."

Notwithstanding the foregoing, the reviewer in the *Athenæum* for January 31st, 1874, insists upon magnanimously handing over Dr. Pettigrew's discoveries without reserve to Professor Marey. To this Dr. Pettigrew, not unnaturally and very properly, objects.

Dr. Pettigrew's researches, fortunately for himself, are not confined to flight. He has shown that quadrupeds and bipeds walk, that fishes swim, and insects, bats, and birds fly by figure-of-8 movements. Thus, in the Proceedings of the Royal Institution of Great Britain for March, 1867, he states that, "in the fish the lower half of the body and broadly-expanded tail are applied to the water *very much as an oar is in sculling*." The movements of the fish in swimming are subsequently compared with those made by the wing in flying. But the oar in sculling, as everyone knows, *makes figure-of-8 movements*. In the Linnæan Transactions of the same year—namely, 1867—(vol. xxvi.) he shows that the fish when swimming throws its body into two curves during extension and the forward stroke (this represents one half of a figure-of-8); the body being thrown into two opposite curves during flexion and the backward stroke (this represents the remaining half of the figure-of-8). The diagrams given in illustration consist of figure-of-8 curves crossing each other (Diagram 2, p. 204; Plate xv., Fig. 76); similar curves being made to represent the movements performed by the feet of a bird in swimming, and the extremities of a man in walking. Dr. Pettigrew next proceeds to show that the pectoral fins of fishes, the flippers of the seal and sea bear, and the wings of the penguin in swimming, and the wings of insects, bats, and birds in flying, *are thrown into curves resembling those described and figured in the fish*. In Figs. 68, 69, and 70 (Plate xv.) the anterior and posterior margins of the wing of the insect, bat, or bird, are represented as crossing each other, and making figure-of-8 curves; similar curves being delineated in Figs. 57, 73, and 74, all which shows clearly enough that Dr. Pettigrew's researches have a philosophical continuity, and that the figure-of-8 and waved movements which he describes as made by the wing in flight are also made by the travelling surfaces of quadrupeds, bipeds, fishes, &c. In other words, the figure-of-8 and waved movements made by the wing in flight are, he explains, an outcome of similar movements adapted to the land and water.

An especially important and interesting discovery has been made by Dr. Pettigrew as to the direction of the downward and upward strokes in progressive flight. Up to the time Dr. Pettigrew wrote (1867), authors were unanimous in affirming that the wing was made to descend either *vertically downwards* or *downwards* and *backwards*, the wing being elevated in a contrary direction. To Dr. Pettigrew belongs the merit of showing that in progressive flight the wing invariably descends *in a downward and forward direction*, so as to make *a downward and forward curve*, and that during its ascent the wing rises *in an upward and forward curve*, the downward and forward and upward and forward curves, when united, giving *a waved track*. He also shows that the under surface of the wing, both when it rises and falls, looks *downwards and forwards*, so that it acts as a kite both during the down- and up-strokes, the wing having virtually no slip.

The Messrs. Garrod and Ward and the reviewer in the *Edinburgh Medical Journal* (*Nature*, Jan. 22nd and Feb. 12th; *Edinburgh Medical Journal*, March, 1874) oppose these views on hypothetical grounds, but as they advance no proof in refutation of Dr. Pettigrew's ingenious experiments with natural and artificial wings, their arguments are valueless. The well-known naturalist, Mr. Alfred R. Wallace, ably defends Dr. Pettigrew's statements as to the direction of the down- and up-strokes in progressive flight (vide *Nature* for Feb. 19th, 1874); and there can be little doubt that Dr. Pettigrew and Mr. Wallace are right.

By those interested in animal locomotion Dr. Pettigrew's new volume will be welcomed. We have great pleasure in recommending it as in every way worthy a perusal. The reader will find it replete with bold, original, and interesting matter. The chapter on Aeronautics cannot fail to rivet the attention. It opens up a wide field for discovery—a field destined, no doubt, to be fully occupied at no very distant day. The typography and engravings of Dr. Pettigrew's new book are worthy the highest commendation.

Lectures on the Diseases of Infancy and Childhood. By CHARLES WEST, M.D. Sixth Edition, revised and enlarged. London: Longmans, Green, and Co. 1874.

WE have read with much pleasure Dr. West's Lectures on the Diseases of Infancy and Childhood. The work, which has long since obtained a well-deserved reputation from its clear description of disease and the fine style in which it is written, has now reached its sixth edition.

The present work has been very carefully revised, and a great deal of new mattter has been added. Several parts have been rewritten, and the work, still retaining its original form, has thus been brought down to the latest date. The diagnostic value of the thermometer in several affections, and of the ophthalmoscope in diseases of the brain, are alluded to. The term "tubercular meningitis" is now used instead of acute hydrocephalus, and "typhoid fever" for remittent fever. The numbers given in the statistics are increased, the author, as he says in his preface, being able to embody the records of 743 more cases and of 181 more post-mortem examinations.

Since Dr. West's book is well known and appreciated, we need only draw attention to the most prominent alterations in this edition. First of all we notice that Dr. West has somewhat modified his views on the treatment of acute inflammatory affections. He says, page 17, "I find that my practice now differs much from what it was a quarter of a century ago, that I deplete less than I did, that I have less faith in mercury, that I employ antimony more rarely, that I have more confidence in Nature's powers, less reliance on my own resources; and yet I am unwilling to believe that all my former observations were erroneous, and that my old faith was entirely misplaced." It seems reasonable to suppose that the character of disease has somewhat altered during the last few years, and that the class of cases which required this active treatment is less frequently met with; still, time after time cases occur which are undoubtedly benefited by such measures.

The remarks on Congestion of the Brain have been considerably modified. Abstraction of blood is still recommended in the active form, if relief has not been given by other simpler means, such as keeping the child quiet, cold to the head, and purgation. In cases where formidable head symptoms usher in the exanthemata, for which depletion has often been used with great advantage, Dr. West now recommends packing in the wet sheet, which he has found followed by the most satisfactory results.

Dr. West has added much fresh matter on the Pathology and Treatment of Chorea. He demurs to the theory of embolism as capable of accounting for the phenomena in all, or even in the majority of cases. He believes that chorea falls into the same category with the majority of the convulsive diseases of early life, and that its phenomena depend on irritation, direct or indirect, of the nervous system. Speaking of the treatment, after enumerating various remedies, Dr. West says that the only one which has appeared to him to exert any specific power is the sulphate of zinc given in increasing doses, commencing with

a grain, and going on to fifteen or twenty, three or four times a day.

The chapters on the Diseases of the Respiratory Organs remain almost unchanged. Some valuable remarks on asphyxia of the fœtus and its treatment, and on spasmodic cough and asthma in children, have been added. In the chapter on Pleurisy Dr. West adds a caution with reference to the diagnosis of pleurisy and empyema in childhood—a condition which he thinks is often overlooked through culpable carelessness, for the diagnosis is not difficult, but, not being suspected, it is not looked for. The remarks on paracentesis are exceedingly good.

The chapter on Abdominal Tumours has been rewritten, and will well repay a careful perusal.

Foreign Gleanings.

TREATMENT OF DIPHTHERITIC BUBOES.

IN a recent number of the *Bulletin Général de Thérapeutique* is an interesting article by Dr. Bouchat on the above disease, which is, as yet, little known, and which constitutes a grave complication of diphtheritic angina, scarlatina, and croup. The progress of the lesion is slow, the ganglia are tumefied, moderately painful, and scarcely perceptible amidst the puffiness of the cellular tissue. The result is a deep, peri-ganglionic phlegmon, and the formation of a vast purulent focus, with suppuration proceeding from the deeper to the more superficial parts. Thus the patient is often carried off by the effects of putridity. The therapeutical indication is, therefore, to open the buboes very early, and to seek for the pus in the deep parts of the region. Out of twenty-two cases of this kind, six ended in cure because they were opened early.

HYDRATE OF CHLORAL IN TRISMUS AND TETANUS OF NEW-BORN CHILDREN.

Dr. A. von Hüttenbrenner has made a trial of chloral hydrate in the above cases, and, on the strength of his own experience, added to that of Steiner, Auchenthaler, Monti, &c., thinks he is justified in arriving at the following conclusions:—1. Tetanus is a disease which is not necessarily fatal. 2. The cause of the disease is febrile or not; in the former case it is but a partial manifestation of general poisoning of the blood; in the latter it consists of reflex spasms excited by peripheric irritation. 3. Prognosis is more favourable in cases unattended by fever, though it is not necessarily unfavourable in cases accompanied by fever. 4. Chloral hydrate is far from being a specific for tetanus, but its employment must be recommended because it is a pure hypnotic, which does not determine congestion of the brain as morphia does, is easily administered to children, and finally has been undoubtedly successful in a great many cases.—*Jahrb. d. Kinderheilk.*, Jahrg. 7, H. 1, 1873.

TREATMENT OF DYSENTERY.

During his sea voyages as a navy surgeon, Dr. Bodo Wenzel has often had occasion to make use in dysentery of enemata of iced water; or, rather, water containing finely powdered ice. Under the influence of this treatment, he has noted the rapid disappearance of the bloody stools and tenesmus, and amendment of the fever. This treatment is only successful, however, in recent and acute cases. It then constitutes a most efficacious remedy. — *Berl. Klin. Wochenschrift*, No. 48, 1873.

ENEMATA OF BROMIDE OF POTASSIUM IN OBSTINATE VOMITING.

Dr. Girabetti has obtained the very best results from the administration of enemata of bromide of potassium, in doses of from one-half to two drachms, in cases of obstinate vomiting attending the pregnant state. The same drug, also administered in enemata, has been very successful in the hands of Dr. Laborde, of Paris, in obstinate vomiting, connected with disease of the stomach, liver, and intestines.

RESECTION OF THE UPPER JAW IN A CASE OF SARCOMA OF THE BONE.

At one of the last meetings of the Sociedade das Sciencias Medicas of Lisbon, Dr. Barbosa presented the notes of the above case. The disease dated sixteen months when the operation was performed; the tumour was the size of an orange, and caused the eye to jut out of the orbit. The pain was unbearable. It was decided by the surgeon of the hospital, San José, that the only chance of safety was in the operation, and on the 9th of October, 1873, it was performed by Dr. Barbosa according to Velpeau's method. Slight hæmorrhage on the second and fourth days after the operation was stopped with perchloride of iron. Twenty-five days after the operation the patient left the hospital perfectly healed. All that is now to be seen of the operation is a slight cicatrix extending from the commissure of the lips to the anterior portion of the cheek-bone.

CRAYONS OF METACHLORAL FOR EXTERNAL USE.

M. Limousin, a Paris chemist, has prepared crayons of metachloral, or insoluble chloral, for external use. The crayons are coated with paraffin, on scraping which, when the use of the pencils is required, it is easy to apply the substance to the cervix uteri, the conjunctiva, or the surface of wounds. Metachloral, which is less irritating than chloral, and is solid, is prepared by means of hydrate of chloral and sulphuric acid. The acid takes hold of the water of the hydrate, the chloral separates in the anhydrous state and after a few days is converted into a hard white substance. It is then washed, and subjected to the action of chloride of lime, which removes all the water. The result is metachloral, which, being mixed with gum, can be easily moulded and made up into crayons.

CHLORHYDRATE OF TRIMETHYLAMIN IN RHEUMATIC FEVER.

A new successful instance of the above has been communicated to the Therapeutical Society of Paris by Dr. Martineau. When called to the patient he found that the elbow had, since the morning, become red, enlarged, and painful; skin hot; pulse 90. Ten grains of the drug were administered. The next day a great improvement was noted. The pain in the elbow had entirely disappeared, and the pulse had fallen from 90 to 65. No crisis or cardiac complication had occurred. The same treatment had been equally successful in a similar attack a year previously.

A NEW DIAGNOSTIC SIGN OF AMYLOID DEGENERATION.

Dr. Lionville, of Paris, has observed the presence, in the urine, of epithelial cells having undergone amyloid degeneration in the adult. He advises therefore in all cases where amyloid degeneration is suspected to exist—namely, those in which chronic diarrhœa with cachectic symptoms, and tumefaction of the spleen are observed—to search in the urine for this additional sign.

New Invention.

HYPODERMIC SYRINGE WITH EXPANDING PISTON.

EVERYONE who is accustomed to employ subcutaneous injection must have frequently met with the annoyance of finding that the syringe which he required in a hurry was useless, because the dried-up piston no longer fitted the cylinder. An improved piston has been designed by Dr. Buzzard, with the view of obviating this inconvenience. In this invention the piston-rod consists of a tube, through which passes a rod terminating in a metal cone, which, by means of a screw below the handle, can be withdrawn, with its apex foremost, beneath the leather of the piston. In proportion as the cone travels up it expands the leather, and in this way any deficiency in the size of the piston caused by the drying up of the leather can be compensated.

The instrument is manufactured by Mayer and Meltzer, London.

THE LANCET.

LONDON: SATURDAY, MAY 30, 1874.

THE importance of putting our system of civil registration of births and deaths into a thoroughly effective condition might be demonstrated from many considerations. It is, however, in its relation to medical and sanitary science that we, as journalists, are concerned with this system; and from no other point of view does it appear to us that a stronger case can be made out for insisting that the Bill now before Parliament for amending the Registration Acts should be purged as far as possible from the defects which at present mar it. We are fortified by Mr. SCLATER-BOOTH'S opinion in asserting that the central and local sanitary authorities should have the means of knowing "as speedily as possible" what are the prevalent and fatal diseases in any locality; furthermore, Dr. LYON PLAYFAIR has told the House of Commons that an accurate registration of births and of the causes of death would be "infinitely valuable" to public health and to the protection of life, and that negligence in keeping the registers "introduces serious errors in sanitary statistics."

Clearly, then, any amendment of the Registration Acts should take the form of supplying the needs and remedying the defects to which Mr. SCLATER-BOOTH and Dr. PLAYFAIR both testify. Let us point out wherein the Bill for which Mr. SCLATER-BOOTH is responsible falls short of what in our estimation is required, and also of what its own author has shown to be necessary. A speedy knowledge of the movement of fatal diseases can only follow upon a prompt registration of deaths, yet by this Bill it is proposed to allow a registrar who receives notice of a death the option of leaving the registration thereof unperformed for a whole month. It is needless to remark upon the serious extent to which delays of such a character would affect all our public health statistics, or at any rate those of them which are issued at short intervals; for example, a return of deaths *registered* in any given month would always embrace an uncertain number which actually occurred at any time in the month preceding. Oddly enough, the fact that, under the present law relating to the registration of inquest cases, delays are found to arise, has been deemed of sufficient importance to call for the insertion of a clause (16) in the Bill, by which coroners are required to send in their informations to the registrars within five days after the inquests are completed. This is surely giving with one hand and taking away with the other. As a rule, the registration of all deaths should be effected within a week, exceptional cases being provided for under special regulations. In the same way with the registration of births—why should so long an interval as forty-two days be given? A month would be an ample limit, and that was the term proposed in the Government Bill of 1872.

Again, as regards still-born children, apart from the question whether such births should or should not be recorded, it is undoubtedly needful that some means should be taken to prevent live-born children from being buried as though they were still-born. Clause 18 of the Bill sanctions the burial of still-born children under certain regulations, the observance of which is enjoined upon the undertaker and the sexton or cemetery officer; the registrars remaining (as under the present Acts) entirely without cognisance of such burials. Mr. SCLATER-BOOTH was right in assuming that the Bill in this respect might be thought not to go far enough, considering that the Bill of 1872 went to the extent of prohibiting the burial of any still-born child without a registrar's order. In default of anything better, this proposal should be reverted to, with the additional provision that the registrar shall enter in a separate register-book the particulars of every case in which he issues a still-born burial order. The interposition of the registrar between the undertaker and the sexton in still-born burials is a safeguard against foul play which ought to be established for the protection of infant life.

Clause 17 perpetuates the existing law in permitting an officiating minister to bury a body in the absence of a registration certificate, on consideration of his sending a written notice of the burial to the registrar within seven days. It is said, and one can easily credit the statement, that clergymen have often a difficulty in knowing to what registrar the notice of burial should be forwarded; and that in point of fact no notice is sent in many cases, the deaths therefore escaping registration entirely. No burial should, save under very exceptional circumstances, be sanctioned by law without the production to the officiating minister, at the time of interment, of a coroner's order, or of a registrar's certificate to the effect either that the death has been duly registered or that notice of the death has been received from the proper informant. Were it not on account of the sparse population and large area of many of the registration sub-districts, the registration of a death before burial should be insisted on; but to meet such cases, and at the same time to guard as far as possible against fraud or crime, all we can ask is that evidence should be produced at burial that the proper registration officer has knowledge of the death.

An important amendment with regard to the registration of births is proposed by Dr. LYON PLAYFAIR. In the case of deaths the registration certificate in 92 per cent. of the deaths registered bears the corroborative witness of a medical man or of a legal official to the fact of death, and thereby the value of the certificate for all purposes is immensely strengthened. But births are registered on the unsupported statement of one informant, whose credibility the registrar has often no means of gauging, and fictitious entries of births are not altogether unknown. It is proposed, therefore, to introduce a permissive system of corroborative evidence of birth by enacting that the informant of a birth may tender a certificate of attendance at the birth, signed by a qualified medical practitioner or by a registered midwife, for the purpose of having it recorded in the birth-register that the fact of birth is certified or attested.

Of the provisions relating to the medical certification of the causes of death we have previously spoken, and may

have again to refer to them; while as to the most striking defect of the Bill, that it prescribes no specific penalty for the omission of informants to give notice of births or deaths to the registrars, Mr. Sclater-Booth will surely not maintain so defenceless a position.

The next stage of the Bill is set down for Thursday next, when the clauses will be considered in Committee. We hope we may take for granted that there is an earnest desire on the part of the Government to put the law of Registration into a state calculated to satisfy all who are interested in its results, whether from special points of view or from general considerations of public utility.

While we willingly admit that a girl's intellectual faculties are at present very inadequately trained, and that it would be preferable to substitute more of what is sound in the way of education for much of what is showy in the way of accomplishments, we nevertheless believe that to apply the same system of mental training and to open the same paths of employment to both sexes alike would be to act in opposition to natural laws, and tend to diminish the usefulness and lessen the healthy influence that women now exert. We do not pretend to lay down any rules for women of exceptional physical energy and exceptional qualities of character and intellect. We are not contending for the inferiority so much as for the essential differences between male and female, physically and mentally; and we hold that if the woman possesses superior powers of penetration, delicacy, and rapidity of thought to the man, she lacks his energy, judgment, power of sustained thought, and creativeness. The logical, philosophical, and scientific woman commonly departs from the ordinary type of her sex quite as much in her physical as in her mental characteristics. A girl's progress in education is far more rapid than that of a boy up to a certain age; but the difference subsequently is not, as is frequently urged, to be attributed to their different pursuits and training, but to the development of the different qualities of mind and body which then become manifested. It is remarkable that a taste for music, as well as an acquaintance with it as an accomplishment, are far more widely diffused among women than men, and yet there are no great female composers, and relatively few performers of power, though many of taste; and among the immense number of female artists how few attain any great celebrity! We would guard ourselves against being considered the opponents of high culture in women; and we can have no desire to debar one sex from taking a part in the race with the other. If the portals of every profession were thrown open to both sexes to-morrow, the number of female competitors would be very few. Anything increasing the number of their occupations would, at any rate, tend to relieve the monotony and *ennui* by which so many women are oppressed, who are not only capable but anxious to pursue higher objects than they can now attempt. The love of sensationalism, the pursuit of excitement, and many of the nervous diseases of females, may be traced to a perverted energy and power which might be bestowed on higher objects and turned into healthier channels but for the limited number of occupations, and the poor, unsatisfying lives that so many women lead.

When recently referring to this subject, we adverted to Mrs. Garrett-Anderson's clever article in the *Fortnightly Review*; but we would notice that, in the following reasoning, the point, as it appears to us, is missed. After speaking of the temporary prostration alleged to accompany a certain periodical function, Mrs. Garrett-Anderson states that this temporary weakness is not felt, or is even recognised as an aid, the nervous and mental power being in many cases greater then than at any other time. This is confirmed by what is observed when this function is prematurely checked, or comes naturally to an end. It is surely unreasonable, Mrs. Anderson adds, to assume that the same function in persons of good health can be a cause of weakness when present and also when absent. There is apparent force in this, but it is only apparent; for if the function is checked prematurely, it is either the result or the cause of ill-health, and the brain would then share in the generally impaired energy of the body; and when the function ceases spontaneously, but prematurely, without impairment of health, it is to be taken as an indication of the decadence of the formative forces of the body, with a concomitant diminution or failure of mental vigour and activity. But the question which concerns us as physiologists is—whether we can subject the two sexes to a training similar in kind and degree without risk of injury. An article on School Hygiene in the recently published "Annual Report of the State Board of Massachusetts" seems to contain evidence directly in point. It is calculated that more than one-fifth of the population of Massachusetts are at school, and subject to the physical as well as the mental influences of school routine, in the growing, formative, susceptible stage of life. The Board of Health addressed a circular to a large number of persons connected with education in the State asking for information, based on their personal experience, on certain specified points of inquiry. Replies were received from a hundred and sixty persons, including physicians, members of school committees, teachers, and superintendents of schools. Seven-tenths of the correspondents declare that girls are more liable than boys to suffer in health from attendance at school; and a still larger majority further assert that this liability increases with the advent of puberty. The report states, as the result of this and other inquiries, that up to the thirteenth year identical co-education is hygienically safe, with the proviso that we make a most cautious use of emulation in all its forms, since at no age is it as safe for girls as for boys. After the thirteenth year girls should not be tasked or disciplined just as the boys are; but such flexibility should be introduced into the school *régime* as shall fully recognise the feminine law of periodicity. Throughout the whole time, it is declared, between the thirteenth and the nineteenth year, the female cannot with impunity bear the same mental strain as the male. Several quotations from correspondents are given in detail in the report in question which fully bear out the view taken above.

We had occasion some time ago to call attention to the observations made during the sinking of the piers of the St. Louis bridge in regard to the effects produced by exposure to an atmospheric pressure of 75 lb. or 85 lb. on the

square inch, and to mention the precautions that had to be taken in order to avoid serious results during the transit from this compressed air chamber to the ordinary atmosphere. We have now to allude to a series of observations made by a distinguished physiologist, M. PAUL BERT, in the opposite direction—namely, upon the effects of rarefied air, and the best means of obviating its unpleasant consequences.

M. PAUL BERT relates in detail the sensations he experienced and the phenomena he observed in himself. As the pressure gradually diminished, and when it had fallen to 45 centimetres of mercury, corresponding to the elevation of Kalamaka in Peru, nausea was experienced, but soon passed off. Very shortly afterwards the face became congested, and vertigo and faintness were felt. When the pressure had fallen to 39 centimetres, corresponding to the pressure at the summit of Mont Blanc, he observed, on attempting to raise his leg, that the muscles suddenly began to tremble violently and perform convulsive movements like those which supervene when long-continued efforts have caused great exhaustion. His writing, in his attempt to register the phenomena, became very irregular, and he found himself in a very peculiar mental state, for, on counting the pulse with much difficulty for twenty seconds, he observed that he was unable to make the calculation required to show the number of beats in a minute. This state, however, like the former, was transient; the abdomen then began to swell, and he began to feel, as he expresses it, a perfectly canine appetite, due probably to the excitation of the intestinal apparatus by the turgescence of the glandular vessels causing active secretion. The amplitude of the respiratory movements diminished one-half, the act of inspiration was effected with great difficulty, and he was unable to whistle. He endeavoured to speak in a loud tone of voice, and could hardly hear himself. He passed into a state of nervous paresis, in which the sensibility was obtuse and the movements slow. The temperature of the body, taken above and below the tongue before exposure to the diminished pressure, the mouth being shut, was 36·5° C. (97·7° Fahr.) beneath, and 36° C. (96·8° Fahr.) on the dorsum of the tongue. When the face became congested the temperature rose to 36·7° C. (98·3° Fahr.) M. BERT further demonstrated the beneficial influence of inspiring oxygen in counteracting the effects of barometric depression. He had scarcely taken more than one or two inspirations when his pulse became slower, as if he had suddenly entered an air chamber in which the atmosphere had been compressed several atmospheres. Such sudden changes are not altogether unaccompanied by danger; but M. BERT believes that by carefully graduating the amount of oxygen added to the air in proportion to the diminution of pressure aeronauts might accustom themselves in some measure to the altered conditions to which they are exposed in lofty ascents, and thus a practical use be made of the restorative effects of oxygen. In one of his experiments directed to this point, M. CROCÉ-SPINELLI and M. SIVEL, who were about to make an ascent on the 24th of March last, were submitted to the action of air reduced to a pressure of 30 centimetres, corresponding to a height of about 22,000 feet. One of these gentlemen became less lively than usual, whilst the other appeared for a moment or two as if asphyxiated, but promptly recovered on making a few inhalations of oxygen. It thus appears to be possible that, if attention be paid to the physiological conditions produced, ascents even higher than those accomplished by GLAISHER and COX might with a due supply of oxygen be effected.

A VERY curious illustration of the limited power of the Medical Council occurred a few days ago. It will be in the recollection of our readers that, in March of last year, the General Medical Council, after a private deliberation, ordered the name of MATTHEW BASS SMITH to be struck off the Register for having, as was alleged—and, indeed, not denied by the respondent,—seduced the daughter of one of his patients. Usually such a course is taken by the Medical Council only after one of the licensing bodies has struck off the name of any given individual from its roll. In this case the bodies whose diploma the inculpated person held had not, up to the time of the case being brought before the Council, used their powers of striking him off their list. And it has just transpired in the Clerkenwell Police Court that, though more than twelve months have elapsed since the Council directed his name to be erased from the Register, none of the bodies whose qualifications he holds have followed the Council's example. In other words, MATTHEW BASS SMITH, though no longer on the Register, continues to be a Member of the Royal College of Surgeons, Doctor of Medicine of St. Andrews, and Licentiate of the Apothecaries' Society of London. These facts were brought to light in consequence of SMITH practising in London, and using the title of surgeon in a death certificate. He was brought before Mr. COOKE, at the Clerkenwell Police Court, charged, under Section 40 of the Medical Act, with "unlawfully, wilfully, and falsely pretending to be, and take and use the name and titles of, Doctor of Medicine and Surgeon." Mr. RICKETTS had a ready answer to the charge. He denied that any evidence had been adduced to show that his client had used the title of Doctor of Medicine, though he still possessed the degree. As regards the use of the title surgeon, Mr. RICKETTS said, and called Mr. TRIMMER, Secretary to the Royal College of Surgeons, to testify, that Mr. SMITH was still upon the register of the College. In these circumstances Mr. RICKETTS contended that his client was, though not registered, a surgeon, and that he did not use the title of surgeon *falsely*. There seems no answer to this contention, and Mr. COOKE very properly dismissed the summons. Mr. COOKE said the Act contemplated two offences: one, the false use of a title; the other, a false pretence of being registered. The summons being so worded as to imply the first offence, the case broke down entirely, and the summons was dismissed. Mr. BEARD intimated his intention of asking for a summons in another form.

The important point is—and it is surely one that should engage the attention of the Medical Council at its approaching meeting—that after a man is found guilty by the Council of "infamous conduct in a professional respect," and his name has been taken off the Register by the Council's order, all the bodies whose qualifications he holds may allow him to retain and use them as before. This is an unseemliness that should not be permitted to continue. We are not either

accusing or excusing MATTHEW BASS SMITH. But we are puzzled to understand how a person can rightly be struck off the Register of the Medical Council and retained on the roll of the College. The College, doubtless, has some reason for objecting to remove the name of MATTHEW BASS SMITH. Its powers of erasing are certainly more sharply defined and more limited than those of the Medical Council. But it is not reassuring to the profession or the public to learn that a man may be, in the estimation of the highest medical body of the land, unfit to remain on the Register, and yet remain a member of the Royal College of Surgeons, a graduate of a Scotch University, and an Apothecary.

Medical Annotations.

"Ne quid nimis."

ST. MARY'S HOSPITAL.

ON Wednesday last a large and fashionable company of ladies and gentlemen assembled in the theatre of St. Mary's Medical School to witness the ceremony of the distribution of prizes and certificates of honour to the successful students at the hands of Professor Rolleston of Oxford. The proceedings were commenced by the Dean, Dr. Shepherd, who read a favourable report of the condition of the school, and of the honours gained in various competitive examinations by its students. That diligence and industry had characterised the labours of many of the gentlemen who had studied at St. Mary's during the past year was distinctly evident by the large number of successful competitors in the various class examinations, the general merits of the candidates being in some instances so nearly equal that a special number of certificates were awarded. After the distribution of the prizes and certificates, Professor Rolleston, in a characteristic and able address, critically discussed the present educational and examinational systems. But, as we shall publish the address *in extenso* next week, we shall at present content ourselves with pointing out the general tenor of Professor Rolleston's remarks. In the first place, he strongly condemned the present extravagant system of compulsory attendance on too large a number of fixed and prescribed lectures. He did not wish, however, to entirely dispense with lectures. Good lectures were of benefit to teachers and students, and tended to bless him who gives and him who takes. In order to make his instruction interesting and profitable, the teacher must carefully prepare his material, and present it in a compact and intelligible form; while the student enjoyed the rare privilege of gaining his knowledge by the natural process of audition. Oral, or rather auditorial, instruction would ever surpass in value and in interest instruction imparted by written or printed works. But a further object is secured by attendance on lectures. A guarantee is thereby given to the public that the student has attended certain classes and demonstrations where knowledge might be gained, though they do not ensure that it had actually been acquired. But the acquisition of knowledge does not depend on the student alone. The teacher has his duties to perform, and in the performance of these duties he will find a large field for the exercise of his talents and for the practice of high morality. He must not confine himself to one-sided statements or to narrow prejudices; for if he do, he will find that his pupils will become one-sided and therefore imperfect investigators and observers, and his own practice will, like the Tartar's bow, recoil upon himself, narrow his intellect, contort his view, and pervert his observation. After describing some of the moral difficulties and temptations of the examiner, Professor Rolleston exhorted those students who were before him, and who would ere long be entrusted with the care of the bodies and the lives of their fellow-creatures, to fully prepare themselves for the enormous responsibilities about to devolve on them. Every course of study and every kind of instruction must be attended to, and the knowledge thereby afforded thoroughly assimilated, so that they should never in after-life have to upbraid themselves with the reflection of proffered instruction neglected and refused.

NIGHT DRINKING AND THE BILL OF THE GOVERNMENT.

WE devoutly trust that the Government will see its way, on the next appearance of the Licensing Bill, to announce a determination not to alter the existing law as regards the hours of closing public-houses. Midnight drinking, as a rule, is bad in every way, and bad for everybody. It is bad for the publicans and bad for their servants, and it is bad, indeed, for those who drink. Our pages for the last two weeks have contained evidence, first of the large amount of night drunkenness still existing in large towns causing accidents; and, secondly, of the diminution of this under Bruce's Act. In Newcastle-on-Tyne, in 70 per cent. of the accidents admitted at night the patients are drunk. In St. Bartholomew's Hospital, London, according to the testimony of a former dresser, two out of every three night accidents (excepting those occurring among butchers in Smithfield Meat Market, of whose sobriety, by the way, we hear very creditable accounts) were caused through drunkenness. It is the opinion of Bartholomew's men that there are not nearly so many accidents at night as before the 1871 Act was passed, and that the number of Saturday night "drunks" has considerably diminished. For example, in St. Bartholomew's, in the course of last month, only ten cases were admitted of accidents to persons drunk. On Whit-Sunday not a single case of intoxication was brought into the hospital. During last week only three cases were admitted, of which two were women. One of the dressers has kindly informed us, that during his three months' experience he has not had a single butcher brought in drunk. Most remarkable of all, up to midnight on Whit-Monday very few cases of even slight intoxication were admitted into the surgical wards. Considering the rain of Whit-Monday, this seems to warrant some hope that coarse drunkenness has been diminished by the much abused Act of Lord Aberdare. Mr. Disraeli is too shrewd a man to please the publicans at the expense of displeasing the public. But even the publicans do not want the hours extended. There may be some grievances to the publicans to be redressed, but we hope the Government, while redressing these, will not convey the impression that it makes light of drunkenness. In this country we are not likely to go in for extremes, but that is only an additional reason for giving stability to moderate legislation on a question which belongs to all parties alike, and which involves the national character.

THE SMALL-POX EPIDEMIC AT PRESTON.

THE small-pox epidemic at Preston shows no signs of diminishing; on the contrary, it is spreading over all the densely populated districts of the town. In some of the alleys and courts of the poorer districts, chiefly occupied by Irish people, there is scarcely a house in which the disease has not attacked the inmates. In these quarters no effort is made to adopt available sanitary precautions, or even to practise ordinary habits of cleanliness. The infectious ward of the workhouse is now filled with small-pox patients,

and there is a great demand for further accommodation. The Board of Guardians certainly do not appear equal to the occasion, or they would not have made such an absurd order as that "the vaccination officer should be instructed to take all necessary steps with a view of preventing, as far as possible, the continued spread of the disease." Prompt and energetic measures are needed if any good is to be done.

The mortality of Preston has for a long time been very high. During the quarter ending last December the vital statistics of the town proved that the deaths exceeded the births—a condition of affairs always regarded as very serious. During the months of January, February, and March, the mortality went on increasing, until it reached the very high figure of 44 per 1000, there being registered 929 deaths against 894 births; so that during the last six months Preston was, with the exception of Munich (when cholera prevailed), the most unhealthy town in Europe. Measles and scarlet fever in a malignant form were the main factors in producing this excessive death-rate. Next to these diseases, whose fatality generally points to defective conditions of drainage, overcrowding, &c., comes small-pox, which now plays sad havoc in the town. In spite of these facts, which plainly prove the urgent need of a rigid system of sanitary and hygienic supervision for Preston, it is positively startling to find that at the last meeting of the General Purposes Committee of the Local Board of Health, although the appointment of a medical officer of health was voted, yet it was done with a bad grace, and determined on simply because it was a compulsory measure. The important duty of complying with the requirements of the Public Health Act was shelved for a long time, in the fond hope that the new Government would abrogate the compulsory terms of the medical appointment. When, however, it became apparent that no announcement such as that anxiously wished for would be made, the Committee—we now quote a local paper—"felt they were bound to proceed with the matter, being at the same time unanimously of opinion that the appointment is unnecessary."

We have no doubt that by this time the Local Government Board has determined to send one of its inspectors to the town to inquire especially into the causes of the present outbreak of small-pox. If the Board at Gwydyr House possesses power of inflicting pains and penalties, it has an eligible subject for correction in the Preston local board.

A FINE QUESTION CONCERNING UNQUALIFIED ASSISTANTS.

THE case of McCaul *v.* Duke, in the Lambeth County Court, is of some interest to the profession. The plaintiff was an unqualified assistant, and acted for eight weeks as the locum tenens of the defendant, during the defendant's absence from town. He sued the defendant for eight weeks' salary. The defendant's attorney met this claim at the outset with the objection that the plaintiff, not being qualified, had no right of action. He could only recover salary when acting under the superintendence of his principal. A case decided in the superior courts, exactly in point, was then adduced, and the judge was obliged to give judgment for the defendant. But for having this case pointed out to him, he said he would certainly have given judgment for the plaintiff. "There was, however," he said, "a good reason for the decision of the superior court, as it protected the public from being doctored by unqualified persons, unless they acted under qualified supervision." Unfortunately the decision has not had the effect of protecting the patients in this case from being left in the hands of an unqualified man. After his first success, the attorney for the defendant asked for costs. But the judge said, No; he would not allow costs under the circumstances. Mr. Duke had been *particeps criminis*; he had employed plaintiff to look after his patients, and now took advantage of a technical point to defeat his claim. There would be no costs allowed.

A fine question arises, and, indeed, is put by the *South London Press*, to which we are indebted for the report of the case:—"As the assistant is not entitled to wages on the ground of his attendance being unlawful, can Mr. Duke, supposing he has given credit, recover for those attendances from the patients? and if he has been paid, may not they recover back the money from him?" The answers which would be given by a court of law to these questions, we apprehend, would not be more favourable to Mr. Duke than the answers given in this case to his assistant. It is almost incredible to us that Mr. Duke should have taken advantage of a technical point of law to evade payment of what, morally, was an obvious debt, unless he had some deeper and other objection to paying his assistant. But if he had such an objection, it is greatly to be regretted that he did not, through his attorney, give some hint of the fact. It is not right for a practitioner to leave his patients in the hands of an unqualified assistant. But, after doing so, it is making no restitution to his patients to refuse to pay the assistant's salary, unless, indeed, by so acting, he means to suggest to them that they too should regard the assistant's services as things not to be paid for.

VAGINAL INJECTION; DEATH.

M. LORAIN has published, in the *Gazette des Hôpitaux* (December, 1873, No. 140), the case of a girl of sixteen, suffering from blennorrhagic vaginitis. The patient, when admitted, was ordered soothing remedies, and a few days afterwards (the precise time is not mentioned), a vaginal injection of a weak solution of nitrate of silver, one part of the salt to fifty of water. It has been computed that the syringe contained about two grains of nitrate of silver. The injection was administered slowly, the instrument not being pushed high up, and some of the fluid escaped from the vulva. The pain was immediately excessive—so much so that the patient rolled about the bed with agony. Ice was at once applied to the abdomen and the vagina, upon which a slight improvement took place. For the next four days she remained in a precarious condition, without getting worse, though a certain amount of stomatitis supervened. On the fifth day the patient died suddenly.

On a post-mortem examination, suppurative metritis was found; the Fallopian tubes were filled with pus, a portion of which had reached the peritoneum, where a diffuse inflammation was discovered.

M. Lorain cites several cases where death followed simple exploration and cauterisation of the cervix, also a case of Jobert de Lamballe, in which the patient perished after the application to the neck of the uterus of the actual cautery. He thinks the injection, in the case of his patient, had very little to do with the fatal results, and considers that the pain occasioned by the nitrate of silver injection had caused the passage of the pus from the tubes into the peritoneum. Hence he lays down the rule that women suffering from vaginitis and tenderness about the ovaries should be kept very quiet, and take sedative medicines. Thus the author seems to hold that the mucous membrane of the uterus had secreted pus *before* the injection, which opinion may not be the correct one. When the suddenness of the pain after the injection is recollected, one may be justified in looking upon the latter as having directly penetrated into the uterus, where subsequent suppurative metritis, with its consequences, was at once excited. As stomatitis

was observed some days afterwards, it may be suspected that some mistake had occurred in the preparation of the supposed nitrate of silver solution, which possibly contained some mercurial salt.

When we consider, on the other hand, that nitrate of silver has, before this, been injected not merely into the vagina, but into the uterine cavity; and that, moreover, Courty, a great authority, leaves a stick of the same salt in the uterus to modify catarrh of the organ, we must allow that (always supposing no other substance but the two grains of the nitrate of silver had reached the os tincæ) the patient presented an example of exquisite susceptibility.

It is not said whether the patient took the injection herself, or whether it was administered to her, which is a great omission.

UNIVERSITY OF CAMBRIDGE.

The Regius Professor of Physic has repeatedly called the attention of the Museums and Lecture-rooms Syndicate to the defective accommodation for the medical examinations. The reputation of these examinations pleads urgently for the desired improvement. The Regius Professor of Medicine is at present "accommodated" with a room which was originally intended for a store-room; and steps, it is hoped, will be taken to find him better accommodation. Meanwhile, anatomical and physiological science in the University museums becomes better and better represented. Mr. McAndrew's collection of shells and other specimens, dredged in the course of his many ocean voyages, is a recent and most valuable contribution, while another collection of human crania, made by the late Dr. Thurnam, of Devizes, still further enhances the resources accessible to the student. What with these and other additions to its scientific apparatus, the necessity of increasing the annual grant to the museums and lecture-rooms maintenance fund becomes more and more urgent; and, indeed, a special grant of £500 is proposed to be made to the fund for the current year. A demonstratorship of Comparative Anatomy has been established by the Senate, a post to which Mr. T. W. Bridge has been nominated. His class has been well attended, and with much profit to the pupils. In this department, however, increased accommodation is again required, not only for the greater efficiency of the demonstrator's work, but to obviate the interruption to the proper and ordinary use of the museum. The University of Cambridge is becoming so important a school for the prosecution of the medical sciences that everything affecting its efficiency is of peculiar interest to the profession.

THAMES STINKS.

Two deputations recently waited upon the President of Local Government Board—one from the districts of the Tyne and the Mersey, and the other from parishes in the vicinity of the Thames and this metropolis. The object of both deputations was the same—namely, to obtain some pledge from the present Government that certain manufactories in their respective neighbourhoods would be included in any project for extending the existing legislation. Mr. Sclater-Booth, however, gave no promise of applying the principle of the Alkali Act in this direction. We may confine ourselves to the alleged nuisances arising from certain noxious trades, such as chemical and manure works, carried on along the shores of the Thames. It is not the river that stinks, but the manufactories on its banks. Complaints have been made by the inhabitants of Woolwich, Charlton, Blackheath, and Lee, of the highly offensive smells arising from these sources, and if anyone has any doubt of their reality, he may convince himself by a visit to those favoured localities, where he will find the "balmy breezes" laden with something else than "summer scents." If he be fortunate, or rather unfortunate, enough to encounter a favourable wind for the experiment, and to hit on a propitious time and place for his excursion, he will appreciate the efforts that have been, and are still being, made to overcome or mitigate the nuisance. The complaints come from various sources—civilian and military—and representations have been made by the Sanitary Committee of the Woolwich Garrison, by the War Office, and other bodies, with seemingly little effect so far. If trading companies choose to carry on manufactories of this kind, productive of putrid and sickening odours, they should be certainly compelled to adopt some method for overcoming the nuisance they are causing, or for keeping these effluvia to themselves. And the most annoying thing is that there is every reason to believe that these stinks might be obviated if the proprietors of the different works were compelled to make the attempt. Dr. Ballard has officially investigated the subject, and inspected the different chemical works and manufactories on the Thames, and, according to the excellent report furnished by him, it is clear that much might and should be done in this direction. We hope that Mr. Sclater-Booth will not hesitate to apply some legislation to this end, if the powers possessed by the local authorities are inadequate for the purpose.

OXFORD AS A MILITARY CENTRE.

It is just as well that the contemplated establishment of a military depôt at Oxford received the full and satisfactory discussion vouchsafed to it in Parliament last week. Doubtless there were misgivings, not wholly unfounded, as to the effect of the innovation on undergraduate life. Heads of colleges imbued with the maxim "cedant arma togæ," looked on the proposed encampment as not only an intrusion, but an invasion, and prefigured the enactment of such scenes in the quiet precincts of the university as Lever has depicted in the college career of Charles O'Malley. Other zealous friends of the University saw in the inevitable *entourage* of a military depôt dangers which might demand the extension to Oxford of the Contagious Diseases Acts; while the society of young officers might have a disturbing effect on the even tenor of undergraduate study, and infuse a taste for military life among youth destined for more peaceful professions. These grave misgivings, however, had only to be looked into to disappear. In the first place, the soldiery quartered in Oxford will be a mere handful, quite incapable of affecting the morality of the city. In the next place, the young officer of the present day is, in point of education, whether general or scientific, refinement of taste and manners, quite on a par with the average Oxford freshman; indeed, in manliness and self-reliance, sometimes superior. The considerations that induced the War Office to make Oxford a military centre stood quite unshaken at the close of Monday's debate; and, so far as academic interests are concerned, the fears of the dons as to the proximity of Mars to Alma Mater evaporated into thin air.

THE OFFICE OF MEDICAL OFFICER OF HEALTH FOR THE CITY.

The City Commissioners of Sewers would appear determined to postpone as far as possible, if not to an indefinite period—probably the occasion of an epidemic visitation—the appointment of a medical officer of health. At a meeting of the Court, held on Tuesday last, the report of the Sanitary Committee on the duties and emoluments of the office was taken into consideration. The Committee were of opinion that the work of medical officer of health and also of food analyst was defined by the Sewers Acts of 1848

and 1851, and by other Acts for regulating the sanitary condition of the City, and should also include such duties as might be ordained by any future regulations of the Commissioners. The salary of the appointment of medical officer we have already stated to have been fixed at £500, and that of analyst at £200, but if both offices should be held by the same person the stipend would be £600 a year. A rather stormy meeting ensued on the reading of the report. One resolution was proposed and seconded, that Dr. Letheby should be asked to resume the duties of medical officer of health, and that meanwhile the consideration of the report should be adjourned. This, however, did not meet with approval. A protest was made against advertising for candidates when it was alleged that a certain gentleman had already received promises of votes from the majority of the members. This allegation was warmly contradicted, and a statement made that the Court was determined to secure the best man obtainable for the appointment. One Commissioner asked whether a member of the Common Council was qualified for the office, but this question was not dealt with. After some further discussion the report was carried, and another meeting fixed for Tuesday, the 9th June, when it is to be hoped the election of health officer and analyst will be finally settled.

THE CASE AT MOUNT-STREET WORKHOUSE.

WE recently called attention to the case of Catherine Robertson, who died shortly after being transferred to the house from St. George's Hospital under circumstances which led a coroner's jury to censure the officials of the former institution. A Visiting Committee has since investigated these circumstances, and reported to the board of guardians. The Committee expressed their regret that the master, matron, and medical officer were thrown somewhat off their guard by not having had previous notice; and recommended that the hospital authorities should in future mark such cases "urgent," and give previous notice; and they suggested that a copy of this recommendation should be sent to St. George's Hospital authorities. By an amendment, the word "dangerous" was substituted for "urgent." Some members of the board attributed much blame to the hospital authorities for sending the girl out of hospital, and for not having given timely notice of their intention of so doing, and of the nature of the case. Whatever blame may attach to the hospital authorities, we fail to see that it affords a justification of the want of due management of the unfortunate patient after her arrival at the workhouse. There ought surely to be sufficient means and accommodation in the house available to meet a case of this kind, the urgency of which one would think must have been apparent to anyone on observing the patient's condition.

TRANSFUSION WITH LAMB'S BLOOD.

IN one of the last sittings of the Medico-Physical Society of Dresden a report was given of sixteen cases of transfusion with lamb blood. Six of them, related by Dr. Oehme, have been conducted at the City Hospital; the others in the private practice of several physicians, Drs. Stetzner, Hirschfeld, and Bischoff. In most of these cases the operation was made on account of tuberculosis pulmonum, in one case frequent hæmorrhage of the stomach, in another there were indications of puerperal disease. The phthisical patients selected for transfusion were mostly those in whom the affection of the lungs was only in the first stage of development, while the general symptoms—anæmia, sleeplessness, and deficient appetite—were more prominent. The quantity of blood injected varied from 60 to 150 grammes; the apparatus was constructed accurately as Gesellius uses it for this operation. The first symptoms that appeared after the injection of the lamb blood were very striking, sometimes even alarming. The temperature rose almost immediately to 40° Cels., frequently even to 41° and 42°. Intense dyspnœa, shivering, vomiting, and convulsions were observed in a great majority of the patients. All these symptoms, however, disappeared almost as suddenly as they had come forth, and the patients were able to walk back to their wards or homes. A remarkable symptom which ensued in nearly all cases within the next day or two after the operation was hæmaturia. This phenomenon has been explained by the admirers of transfusion as a consequence of destruction of human blood-corpuscles; but it seems much more natural to suppose that the blood-corpuscles of the lamb were destroyed in the serum of the human blood, just as it has been proved by experiment that the blood-corpuscles of the dog are entirely dissolved in the serum of human blood.

The effect of the operation was almost nothing. Regarding the phthisical patients, neither sleep nor appetite nor any local symptom showed the slightest alteration; the weight of their bodies within the first five or six weeks after the injection of blood decreased in the same proportion as before; the same result was observed in all the other cases. One patient (puerperal disease) died two days after the operation, but the autopsy afforded no reason to believe that the fatal end was due to the therapeutic measure.

It seems, therefore, that the wonderful tales related by Gesellius are not quite trustworthy, and that, if transfusion should be necessary as *ultimum refugium*, nothing but human blood ought to be used for the purpose.

ROYAL COLLEGE OF SURGEONS, IRELAND.

ON Monday the annual meeting of this body was held, and the chief topic for discussion was the Conjoint Scheme proposed by a majority of the Council for acceptance by the fellows. Several speakers having warmly condemned the scheme, it was finally resolved that the incoming Council should be instructed to proceed no further with this or any similar measure without consulting the fellows at a special meeting. This result, which virtually implies the abandonment of the Conjoint Scheme, bespeaks the election of Professor Mapother and other opponents of the plan to the Vice-Presidency and Council of the College respectively on Monday next. The contest will, however, be very close.

COOKING.

THERE is no more important branch of "preventive medicine" than cooking. Bad cooking may cause a dwindling of the race, ruination of the temper, and deterioration of the morals. Good cooking, on the other hand, is accompanied by national prosperity and domestic bliss. So say the promoters of the National Training School for Cookery, who are undoubtedly right in the main, and are deserving of all imaginable success. Now, cooking is both an art and a science. For its progress as an art we are not greatly concerned, although our profession would undoubtedly suffer in pocket should fine-art cookery go out of fashion. "Elegant" dishes are generally whited sepulchres, and the forerunners of blue pills and other disagreeable correctives. We hope that the School will busy itself mainly in imparting a knowledge of the scientific principles of cooking, and will teach their cooks that the one quality *par excellence* which all food should have is wholesomeness. The bulk of the English people live in big cities, and if we were asked to name the most predominating characteristic of our urban population, we should say "dyspepsia." Those who spend their days in dark offices, chambers, or consulting rooms, and keep their noses everlastingly upon their respective

grindstones, seldom know that good digestion which should wait on appetite. Hitherto their dinners have not been so skilfully prepared as to demand the least possible effort from a jaded stomach; but let us hope that the national disgrace of indigestibility will no longer dim the brightness of our hospitality, and that the number of patent medicines which are sold so largely in this country as aids to digestion will undergo a rapid diminution.

THE REMOVAL OF THE WAR OFFICE.

IT is rumoured, and the rumour is apparently founded on good authority, that the War Office is to be removed from the buildings in Pall Mall to those recently erected in the vicinity of Downing-street, and overlooking St. James's-park, where there is ample accommodation for the establishment. In addition to the inconveniences and difficulties connected with the conduct of public business, it is said that the building in Pall Mall has been the subject of many complaints at different times, and that of late these complaints have been more frequent and pressing. A casual visit to the War Office is sufficient to show the difficulty of ventilating a building of such a construction, with its long and badly-lighted passages, series of rooms, basement offices, and the like. The building is besides overcrowded, and no doubt badly drained. To overcome the objections that might fairly be brought against it on sanitary grounds considerable alterations would be required in the way of opening out the interior, by diminishing the number and increasing the size of the rooms and passages, and abolishing some of the offices.

DOCTORS IN RUSSIA.

A RUSSIAN journal, the *Golos*, gives, according to the *Revue Scientifique*, some medical statistics on the relation between the number of physicians to the population in Russia. The proportion is 1 physician to 17,800 persons. In Italy the proportion is 1 to 2280. There are certain governments, like that of Peru for example, and of circles like that of Tcherdinek, in which the proportion is greatly lower—namely, 1 to 60,000. In regard to surgeons, there is 1 for every 12,400 inhabitants; in England there is 1 practitioner for every 3180. In Russia there is 1 hospital for every group of 175,000 persons; in Prussia there is 1 for every 22,000. In Russia there is 1 lying-in hospital for every 6,000,000 people, 1 foundling hospital for every 1,350,000, 1 lunatic asylum for every 390,000, and 1 deaf-mute institution for every 11,000,000 of the population. The soldier is better cared for. There is 1 hospital for every 5000 soldiers, though even in this they are far exceeded by Prussia, which has a hospital for every 1250 soldiers.

NOTES OF HOSPITAL PRACTICE FROM NEW YORK.

WE glean from the *New York Medical Journal* for this month a few notes of the practice pursued in the surgical division of the Charity Hospital, New York. And first, as regards amputations we learn that in nearly all the more important amputations Esmarch's bandage has been applied. It has the advantage of preventing the loss of blood to the patient, but it is stated to increase the tendency to sloughing of the flaps. Two cases recently operated on are mentioned as having suffered in this way. Hospital gangrene is treated in the pavilion, and not allowed to remain in the hospital building. Two principal methods of treatment are resorted to. In one pure carbolic acid is thoroughly applied to the gangrenous surface, and this is followed by a charcoal poultice; and a second or even a third application of the strong acid is made, to be followed, as soon as the progress of the affection is stayed, by the use of the ordinary solution of carbolic acid. By the other method pure bromine is employed instead of the acid, but the remainder of the treatment is the same. Tonics and stimulants are likewise used, and opium is administered if the patient suffers from pain. Dr. J. W. Howe has introduced into the Charity Hospital ordinary sweet-oil as a dressing for wounds of various kinds. Its advantages over other dressings in use are said to be, that it keeps the air from the wound, is a grateful application to the patient, and that its use yields better results. It is also pointed out, as a painless method of cauterising with nitric acid (practised in the venereal division of the hospital), that if pure carbolic acid be first of all applied to a chancroid, it acts as a local anæsthetic, and prevents the nitric acid from causing pain that is not easily borne by the patient.

HOSPITAL SUNDAY FUND.

THE preparations for the carrying out of this movement for the present year are now well in hand. The day falls this year on the 14th June. The Council feel confident and express every hope that the contributions for 1874 will considerably exceed those of 1873. The Lord Mayor receives contributions towards this fund, and all those interested in the movement, but unable to make their donations on the day, are requested to send their subscriptions to the Mansion House, addressed to Mr. Henry N. Custance, the secretary of the fund, who will furnish every information on the subject. The metropolitan clergy and other ministers of religion have again come forward to offer their ready co-operation.

NEW AND RARE ENTOZOA.

IN the recently issued Proceedings of the Zoological Society, Dr. Cobbold has communicated the first of a series of papers based on contributions received from Messrs. Charles Darwin, R. Swinhoe, and other well-known naturalists. Amongst the parasites figured and noticed is the *Filaria immitis*, whose structure and development were described by Assistant Professor Welch, of Netley, in THE LANCET last year, and also subsequently in the *Monthly Microscopical Journal* for October. The paper also contains some account of a new and similar species of filaria from the heart of the hoodcap or crested seal.

AT a late meeting of the sanitary authorities of the Tyne, held at Newcastle, a report of the Floating Cholera Hospital was read. In consequence of the expenditure being larger than the income, it was decided that in future a rate of one farthing in the pound be levied on the several contributing authorities on the Tyne—a step that will raise a sum of nearly £1000. It was also agreed to that in future, when the hospital is not required for persons stricken with cholera, it should be used for the reception of cases of infectious diseases, or those of an epidemic character, occurring on board vessels on the river and in the docks. Each patient so admitted must have a certificate from a qualified medical man, and will be charged a sum of three shillings a day for maintenance.

THE British Medical Association will hold its forty-second annual meeting in Norwich on Tuesday, the 11th of August, and the three following days, under the presidency of Sir William Fergusson, Bart., F.R.S. The Address in Medicine will be delivered by Dr. Russell Reynolds; that on Surgery by Mr. Wm. Cadge, F.R.C.S.; while Dr. Matthews Duncan will read the Address on Obstetric Medicine. During the meeting numerous excursions will be made to places of interest in the neighbourhood.

IN the Twenty-first Annual Report of the Worcester Pauper Lunatic Asylum, Dr. Sherlock, medical superintendent, states that information was sought from all the asylums of the country in respect of the fitness of earth-closets for the use of insane patients, and replies were received from the superintendents of fifty-two such asylums. It was found that twenty-seven asylums used water-closets, and in several of them earth-closets had been tried and were found not to answer. In twenty-five asylums earth-closets were in use, but in thirteen instances unfavourable reports were given of them. The superintendents of nearly all the asylums using earth-closets state that they require more attention than water-closets, and, if neglected in the least degree, emit most offensive odours. Altogether the weight of evidence clearly demonstrated the superiority of water-closets.

DR. FRANK P. FOSTER, Director of the Vaccine Department of the New York Dispensary, in a report just published, states that the vaccine issued from the institution during the past year included 70,302 quill slips of dried lymph, 227 capillary tubes, and 652 crusts. Nearly the whole stock was that of animal vaccine. The dried lymph is said to be decidedly superior to all other forms of stored virus. Singular ingenuity was displayed by some medical practitioners in the process of vaccinating. Thus, many scraped off the dried lymph, wasting the greater part of it; others used the wrong end of the quill; some employed the concave surface (wholly destitute of lymph); and one gentleman actually boiled the quill as a preliminary step!

DR. LETHEBY, in a recent report presented to the City Commissioners of Sewers, states that the average amount of saline matter in water derived from the Thames, and supplied by the Grand Junction, the West Middlesex, the Vauxhall, the Chelsea, and the Lambeth companies, has ranged from 18·77 to 19·67 grains per imperial gallon. The water obtained from the New River and East London companies, and from the chalk wells of the Kent Company, contained from 19·13 to 28·25 grains of such matter. The saline matter consisted chiefly of carbonate and sulphate of lime, nitrate and carbonate of magnesia, and chloride of sodium. Very little organic matter was detected—a result which is to all Londoners a subject of congratulation.

ACCRA, where Sir John Glover recruited his native troops during our late campaign on the Gold Coast, is now suffering terribly from small-pox. There is no hospital, and seldom a medical man in the town, which is in a most filthy condition, and the population is decimated. The survivors bury the dead without coffins, where and when they like. It is no unusual sight to see stark naked corpses carried through the streets. Considering the contiguity of Accra to Cape Coast Castle, it seems surprising that the authorities at the latter place do not take some steps to mitigate the severity of the epidemic. If a vaccinator could not be spared an inspector of nuisances at least might be appointed.

THE mortality of London last week was at the rate of 20 per 1000 annually. The 1326 deaths registered included 26 from measles, 17 from scarlet fever, 12 from diphtheria, 41 from whooping-cough, 21 from different forms of fever, and 21 from diarrhœa. It is satisfactory to peruse another weekly return in which no death from small-pox is recorded. The deaths referred to diseases of the respiratory organs and phthisis, which in the previous week amounted to 387, rose to 417. Fifty-four deaths were referred to different forms of violence. Of European cities, Florence appears to have been of late the most unhealthy, the last returns giving a death-rate of 43 per 1000.

THE wondrous science of telegraphy was put to a novel use some time back in Australia. The occasion was a fray at an outlying station on the Overland Telegraph Line, and near the centre of the continent, between a large number of blacks and some white men, in which two or three of the latter were killed, and several badly wounded with spears. Immediately on the news reaching Adelaide, a surgeon was summoned to the central office of the town, who, from thence, telegraphed to the station, a distance of over a thousand miles, giving full instructions how the wounds of the sufferers were to be dressed. We shall soon have Melbourne and Sidney invalids "wiring" London consultees.

WE notice this week an advertisement in *The Times* in which an agency offers to send surveyors to inspect and report on badly constructed houses. When it is considered how often enteric fever is generated in houses where a little rectification of drainage-pipes and ventilating arrangements would have obviated the disease, it seems that a properly conducted institution from which competent sanitary engineers might be obtained would meet a public want and prove a successful undertaking.

AT a meeting of the Middlesex magistrates, held on Thursday, the report on the coroners' accounts was presented and adopted. Dr. Lankester receives £405, Mr. Humphreys £279, Dr. Diplock £132, and Mr. Bedford £84. Captain Morley again drew attention to what he considered the excessive charges of Dr. Lankester, who, he stated, had held but two more inquests than Mr. Humphreys.

SOME few years ago we had occasion to refer to the growing evil of opium-eating in the United States—a habit that filled its lunatic asylums with inmates, of whom females preponderated. Recent Custom-house returns show that 250,000 lb. in weight of opium are annually imported into this country. It is computed that not more than one-third at most of the drug is used for medicinal purposes.

THE literature of tobacco is far more interesting and curious than is generally imagined. A little book which has just been privately printed, under the title of "Bibliotheca Nicotiana," gives the names in full of about a hundred and seventy separate works on the properties of the weed, ranging in date from 1540 to the present time.

FROM the last mortality returns for Calcutta it appears that sixty deaths from cholera were registered in one week. Madras has lately shown a high death-rate, although small-pox, which had long been prevalent in the town, was subsiding.

THE Harveian Oration will be delivered at the Royal College of Physicians on Saturday, June 27th, at 5 o'clock, by Dr. Charles West. On Wednesday, July 1st, a *conversazione* will take place at the College at 9 o'clock P.M.

THE distribution of prizes to the students of Charing-cross Hospital will take place on Thursday next, at half-past two o'clock. Mr. Beresford Hope, M.P., will take the chair on the occasion.

MR. ALFRED COOPER, F.R.C.S., of Henrietta-street, Cavendish-square, has received from his Imperial Majesty the Emperor of Russia the decoration of the Order of St. Stanislaus.

DR. BUCHANAN, of the Local Government Board, is pursuing an investigation into the causes of the small-pox epidemic in Birmingham.

PRINCIPLES OF HOSPITAL CONSTRUCTION.

BY JOHN SUTHERLAND, M.D.,
Member of the Army Sanitary Commission, &c. &c.; and
CAPTAIN DOUGLAS GALTON, C.B., F.R.S.,
Director of Public Works and Buildings, &c. &c.

No. VI.—ARRANGEMENT OF BUILDINGS.

HAVING arrived at the principles of a healthy ward plan, the next point is to decide in what manner the wards should be arranged on the site in order that the two essential conditions of health and facility of administration may be combined.

Were such an arrangement practicable, the best plan for a hospital would be that of single detached wards. But, with a large number of beds, it would be necessary either to spread the wards over too large an area for administration, or else to attain facility of administration by making the wards too large and placing them too close together.

There are known instances of one-floor-ward hospitals in which the advantages of facility have been purchased at the expense of sanitary conditions. The adoption of single wards—i. e., constructing the hospital on one floor only—therefore necessarily limits the number of beds. The only other alternative is to adopt what is called the pavilion arrangement, which involves the principle of superimposed wards, with staircases for communication. But here, again, the same question arises—viz., How many floors of wards should there be in order to combine facility of communication with sanitary requirements? If the best ward is a one-floor ward, it follows that the fewer floors the more healthy the pavilion will be. If three or four wards are placed one over the other, not only is there constant danger of accidental up currents of foul air from the lower wards to the upper, but the additional height introduces a new element of difficulty in the administration. It substitutes mounting and descending stairs for horizontal communication; it entails unnecessary fatigue, and requires certain important changes to be made in the ward offices, the tendency of which is to increase cost of construction and administration and to deteriorate sanitary conditions. This is a point of so much importance that we should strongly advise neither architect nor hospital committee to adopt more than two floors of wards for a pavilion without careful examination of existing illustrations of both constructions. New St. Thomas's and the Herbert Hospitals afford the requisite points of comparison.

Suppose it is decided that the pavilion is to consist of two floors, the next question is, What is the best arrangement of pavilions? As already pointed out, this must depend on the shape of the ground. If the site is long and narrow, probably the best arrangement would be end to end. The hospital wards and their appurtenances would form a single long line, divided by wide, light, well ventilated and warmed halls and staircases, out of which the wards on each floor would be entered right and left. There would be no difficulty in arranging the watercloseta, lavatories, and baths to suit such a plan. Each hall and staircase would give access to four wards, and a perfectly safe communication could be kept up along the entire line of building by passing between the ends of adjacent wards, not directly but indirectly, by a short terrace in the outer air; and communication for administrative purposes could, if desired, be carried on by means of a basement corridor.

Where there is sufficient breadth of ground, a more compact arrangement is to place the pavilions parallel to each other, at a not less distance than twice the height of the pavilion wall. There is no objection to the use of double pavilions, such as are shown in Fig. 1. Lariboisière and new St. Thomas's have single pavilions; Herbert Hospital has examples of both double and single pavilions. A careful study of existing examples, with reference to the capabilities of the site on which it is proposed to build, will enable this point to be determined with ease.

It is best, where possible, to run the axes of all the wards north and south, or nearly so, inclining the south end perhaps a little to the west where N.E. winds prevail. Such an arrangement allows sunlight to fall on each side of the ward and prevents the deposit of damp.

The hospital proper, then, consists of wards with their nurses' rooms and sculleries at one end and watercloseta and baths at the opposite end, and the only remaining question is how to link them and the administrative offices together to form an establishment with proper regard to the free circulation of the outer air between and around the pavilions.

The first essential principle to be observed is that there ought to be no building placed between the pavilions, otherwise the advantages of the pavilion structure are more or less neutralised. There should not be anything between the pavilions but a low corridor for shelter. There are examples where the corridor is formed simply of open arches, or is supported on pillars. In the Herbert Hospital there is a compromise—viz., an arched corridor with glass windows on both sides, which can be opened, to be used both as means of communication and of exercise for convalescents in bad weather. The roof of the corridor in this instance is flush with the floor of the upper floor wards, except between the double pavilions, where it is lowered as much as possible to allow of freer air currents. One use of the roof of the corridors which was contemplated in the plan was to allow of bad cases of wounds, during war, being wheeled out on their beds, to be treated more or less in the open air, if the medical officers judged such a course to be necessary; otherwise the lower the corridor the better. A corridor with a clear headway of 8 ft. 6 in. is ample for purposes of communication. The relation of the corridor to the pavilions in the Herbert Hospital is shown in Fig. 5.

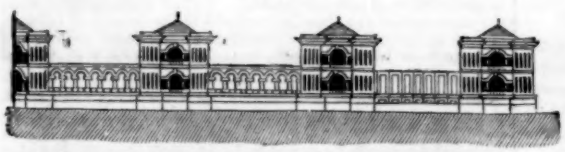
We have alluded already to the necessity for having some separate wards for bad or operation cases. Where the pavilion structure is adopted there is no difficulty in providing such wards, if we keep in view the necessity for separating accommodation of this class entirely from the other wards. It is not a sufficient provision for such cases to place them in a ward in the same pavilion and on the same floor as the general cases, which is the usual arrangement. There ought to be a separately constructed pavilion for them, and apparently the best way of meeting this want would be to plan one or more single-storey pavilions, such as is shown in Fig. 6, taken from the ground-floor plan of Herbert Hospital, the accommodation being intended for lunatic cases under observation. There is an internal corridor, thoroughly lighted and ventilated from the roof, and the ward rooms are arranged on either side of the corridor. The inner corridor should be (for special wards) at least 12 ft. wide, with a large window at the outer end, and the ward sinks, watercloseta, &c., should be on either side the window, as in the larger wards. A nurses' room and scullery should be placed on either side the entrance to the corridor. An essential point in such an arrangement is that the roof over the corridor should contain sufficient glass area to light it thoroughly, and there should be sufficient means of warming, and of ventilating the corridor along the roof. The small wards on either side should be separately warmed and ventilated, and a portion of each door should be of plate glass, to enable the attendant to inspect the interior

of the rooms with as little disturbance from opening doors as possible.

These principles of distribution of buildings are equally applicable to cottage and convalescent hospitals planned in separate blocks. Probably a mere open verandah would afford the cheapest means of communication for such establishments.

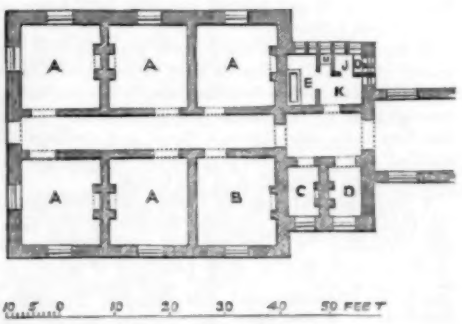
The hospital proper has next to be connected with the administrative buildings, for no part of this class of accommodation should be placed within any ward pavilion, neither should it have any direct communication with the wards. Such a thing as placing the hospital laundry within the building, or boiler rooms at the foot of ward stairs, ought never to be thought of. The linen should either be sent away to a distance or else the laundry should be placed at a sufficient distance to leeward to prevent injury to the outer air for supplying the wards. One set of boilers ought to be enough for any hospital, and they should be placed by themselves, cut off from the ward accommodation, with ventilation to the outer air. The kitchen and its stores should be in a separate building or pavilion, and over it might be placed the chapel. The kitchen, however, must be near enough to ensure that the patients' diets can be delivered quickly and warm. Linenry, mending rooms, and administrative offices, surgeons' and physicians' rooms, dispensary, library, &c., together with officers' quarters, may be at a greater distance than the kitchen. Accommodation for nurses should also be in a separate building. It is scarcely

FIG. 5.



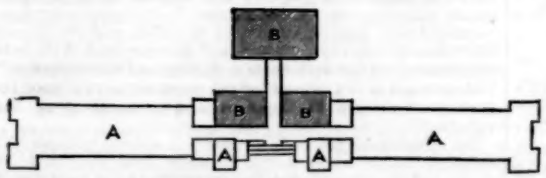
Sketch of the ends of the southern pavilions of the Herbert Hospital, showing the elevation of the central corridor.

FIG. 6.



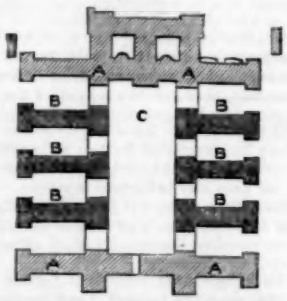
A, Separate wards. B, Ward-master. C, Nurse. D, Scullery. E, Bath. J, Watercloset. K, Lavatory, &c.

FIG. 7.



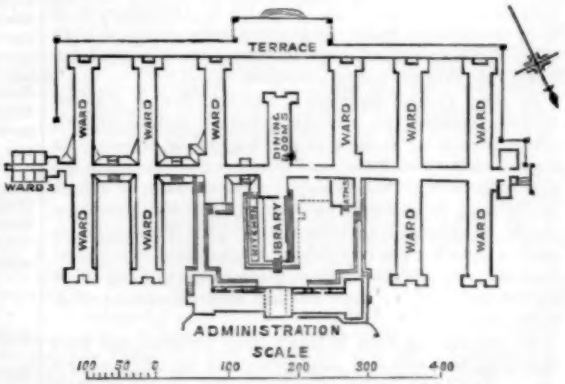
Military Regimental Hospital.
A A, Wards. B B, Administrative Department.

FIG. 8.



General plan of Lariboisière Hospital, Paris.
A A, Administration. B B, Wards for patients. C, Courtyard.

FIG. 9.



General plan of Herbert Hospital, Woolwich.

possible to expect nurses to retain their health if they have to spend the day in a sick ward and to sleep at night in the same pavilion, in quarters entered from the ward stairs, permeated with air from the wards.

The block or blocks containing the administrative part of the hospital should be connected with the ward communications by open verandahs only.

The following examples of the relation between sick wards and administrative offices in existing hospitals show different methods of arrangement of pavilions and separation of administrative offices :—

In the example illustrated by Fig. 7 the wards are on one floor only ; but for smaller hospitals there are two floors of wards, and the building is half the length. Hospitals of this class are used for from thirty to sixty patients.

The block plan of Lariboisière (Fig. 8) shows the sisters' quarters, chapel, baths, laundry, and linenry at the top of the figure, and the administrative offices, medical officers' rooms, dispensary, kitchen, and quarters at the lower end, with the detached pavilions, containing 612 beds, between these two branches of the administration.

The block plan of Herbert Hospital (Fig. 9) shows the administrative block quite detached from the hospital proper, which has room for 650 beds. It shows the library on the ground-floor. Under the library is the kitchen, and above the library is the chapel. The entire work of the hospital is conducted in a corridor underneath that shown in the plan, and this corridor is connected with each floor by small lifts for raising the diets to the corridors above. The entire building is fire-proof, and rests on a damp-proof

course; and the ward walls are double, with an air space inside to save heat and keep out damp. There is only one staircase, in the centre of the building, between the administrative corridor and the ward corridor adjoining the library and chapel, and a subsidiary staircase at one end.

The discussion on principles of hospital construction in the present and preceding papers contains the result of long experience, and may afford the means of avoiding recent errors of plan. But in concluding them it is necessary to end, as we began, with the observation that all a hospital architect can do is to place at the disposal of the hospital authorities a building in the plan of which he has endeavoured to embody healthy principles of construction. By so doing he has simplified all the problems connected with the hygiene of sick and injured patients, but he has not abolished these problems.

It has happened in some cases that the less perfectly constructed building has afforded better results in practice than the more perfect building, simply because the general management of the former has been better. Cleanliness has been more carefully maintained, and perhaps also the medical and surgical management of the patients has been better, in the former than in the latter.

A large general hospital, under any circumstances, is a complicated building, requiring knowledge and care in its administration. On going over many buildings of this class, we may find as many principles of management as there are buildings. We may find windows open in one hospital, or in one set of wards under one medical man, and closed in those in charge of another. Ventilators sealed up in one and open in another. Very different ideas of cleanliness and neatness appear to prevail in different hospitals, and even in the same hospital one ward may be well aired and another foul. It would be advantageous to have clear directions for the sanitary management of large hospitals drawn up, and a special officer should be appointed to see that they are put in execution.

In army general hospitals a sanitary officer is required to be appointed (he may be principal medical officer), whose duty it is "to see that the hospital is preserved in a good sanitary condition, and to report immediately to the governor, through the principal medical officer, all defects in drainage, watercloseta, water-supply, ventilating arrangements, cleanliness both without and within the hospital, as well as any other sanitary defects which cannot be remedied in conformity with instructions given by the sanitary officer on the spot; and he shall see that such defects are effectually remedied."*

No one who has been in many large hospitals can have failed to find sufficient employment for an officer of this class. In a large faulty general hospital a sanitary officer would do much good; but his presence would also be advantageous in every large hospital.

* New Army Medical Regulations, 1859.

FAREWELL SUPPER. — On Monday evening the resident assistant-surgeons and physicians of the Glasgow Royal Infirmary, with a few other gentlemen, entertained Dr. W. H. H. Strother, on the occasion of his leaving the Infirmary for the south of England. The chair was filled by Dr. W. J. Scott, the position of croupier being occupied by Mr. Hilliard. The chairman, in proposing the toast of the evening, spoke at some length of the numerous good qualities found in the character of Dr. Strother, and expressed his own and others' regret at the departure of their guest. In his reply that gentleman referred in very feeling terms to the great kindness he had experienced while in Glasgow, which made the prospect of leave-taking painful in the extreme.

Correspondence.

"Audi alteram partem."

THE OVULAR THEORY OF MENSTRUATION.

To the Editor of THE LANCET.

SIR,—In the present number of the *Archives de Physiologie*, Dr. Kronid Slavianski, of St. Petersburg, in an article on the Graafian vesicles of the human female, submits the following propositions:—

"I have proved the existence, almost without exception, of Graafian vesicles visible to the naked eye in young females from the age of one week up to the time of puberty. These vesicles, under the microscope, appear more or less mature, and cannot be distinguished from those which are met with in the ovaries of adult females." "That which proves that the existence of the Graafian vesicles in the ovaries of infants is not an accidental phenomenon is that they are always present." "It is therefore necessary to admit that from the earliest times after birth Graafian vesicles are developed in the ovaries, these vesicles having all the appearance of those met with in the ovaries of adult females. Consequently the functions of the ovary (the maturation of the vesicles) are carried on, not only in adult women, but also before menstruation, and even in infancy." "That there are other causes than menstruation which produce the rupture of the Graafian vesicles, and the expulsion of their contents, is proved in the case of women becoming pregnant before menstruation has commenced." "That the development and the maturation of the Graafian vesicles do not take place in any regular periodical manner, and that there is no connexion between their condition and menstruation." "Menstruation is a physiological phenomenon entirely independent of the development and maturation of the vesicles."

Dr. Slavianski proceeds to mention several authors, the dates of whose works range between 1865 and 1873, in support of the above statements, and cites from Dr. Beigel* the histories of cases in which the removal of both ovaries in ovariotomy had not arrested the regular recurrence of menstruation. In the year 1849 my father published in the late *London Medical Gazette* a paper entitled "An Examination into the Grounds of the Ovular Theory of Menstruation"; in which, after mentioning Dr. Ritchie's researches to the same purport, published in vols. 33, 34, and 35 of the *London Medical Gazette*, he concludes as follows:—

"The examination, then, of the so-called theory failing to exhibit the grounds of other than an ingenious hypothesis, the actual state of our knowledge of the nature of menstruation may be expressed in the following propositions, whence it will appear that the 'ovular theory' has not added much to our previous information:—

"1. Menstruation is a *periodical* function of the uterus.

"2. Ovulation is the *constant* function of the ovaries.

"3. Ova are matured in the ovaries at all ages, but more rapidly during menstrual life.

"4. Ova are discharged at all periods of female life, in the intervals of, as well as at the time of menstruation.

"5. Ovulation and menstruation being often concurrent indicates that they are both the result of the attainment of a certain point in the development of the female economy.

"6. The law of periodicity in the one not obtaining in the other leaves still wanting the link in the chain of causation whereby menstruation can be shown to be the effect of ovulation.

"7. At the menstrual period the ovaries experience an extension of the uterine congestion, and become, equally with the uterus, the seat of increased functional activity.

"8. The menstrual flow is a true hæmorrhage, as shown by chemical analysis and by the phenomena of disease."

From the above quotations it will be seen that neither Dr. Slavianski nor Dr. Beigel is the first to contest the idea that the function of menstruation is due to the discharge of ova.

The ovular theory is, however, still the accepted doctrine taught in our handbooks of physiology.

I remain, Sir, yours faithfully,

May 26th, 1874. W. HENRY KESTEVEN.

* Ueber der Verhältniss der Menstruation zur Ovulation; Wiener Med. Wochensch., 1873.

URETHROTOMY OR LITHOTOMY IN AGED OR DEBILITATED PERSONS.

To the Editor of THE LANCET.

SIR,—Having read in THE LANCET of November 1st, 1873, a paper by Mr. W. L. Crowther, headed as above, it has been thought desirable by myself and other medical men here that the following facts in connexion with the so-called "urethrotomy and dilatation of the prostate" should receive as much publicity as Mr. Crowther's statements, in order that the profession may fully understand the merits of the operation advocated.

The following table embraces the whole of the cases operated on by Mr. Crowther at the Hobart Town General Hospital during a period of about nine years:—

Name.	Age.	Operation.	By whom.	Date of operation.	Result.	Size of Stone.
R. M.	50	Median.	Mr. Crowther.	April 4th, 1861.	Died 16th April, 1861.	Length, 2½ in.; breadth, 1½ in.; thickness, 1 in.; weight, 1⅞ oz.
A. B.	5	,,	,, ,,	Jan. 30th, 1862.	Disc. 17th March, 1862.	Length, 1⅞ in.; diameter, 1 in.; weight, 3½ dr.
W. L.	6	,,	,, ,,	April 12th, 1862.	Disc. 6th May, 1862.	Length, $1\frac{5}{10}$ in.; breadth, $1\frac{5}{10}$ in.; depth, $1\frac{1}{10}$ in.; weight, 7 dr. 9 gr.
R. N.	3	,,	,, ,,	Oct. 22nd, 1862.	Disc. 10th Nov., 1862.	Small nutmeg.
J. N.	61	,,	,, ,,	Feb. 23rd, 1866.	Disc. 22nd March, 1866.	10½ dr.
J. P.	57	,,	,, ,,	March 4th, 1867.	Disc. 22nd April, 1867.	4 dr. 35 gr.
C. H.	53	,,	,, ,,	Aug. 16th, 1867.	Died 10th Aug., 1867.	9 dr.

R. N.—This patient is recorded as having been discharged on the 10th of November, 1862, but there was at that time a fistulous opening in the perineum through which the whole of the urine passed; my diagnosis of the case being that in the attempt to dilate the prostate the membranous urethra had been torn through. The boy was readmitted for the purpose of having this cured. He remained in hospital for upwards of five years, and was then discharged without anything further having been done.

C. H.—I made a preparation of this man's bladder. The prostate was so extensively lacerated that the little finger could be laid in the rent.

So far as is known by medical men here, Mr. Crowther's experience in lithotomy extends to fifteen or sixteen cases—I may safely say under twenty,—these embracing both private and hospital practice. The whole of the hospital cases are recorded above; and, of the private cases, one death at least is known to have occurred; in another case, at which I was present, the calculi, three in number, were of such a size (the largest being little greater than a small bean) that one crush from a lithotrite would have readily reduced any of them to powder.—I am, Sir, yours obediently,

GEORGE TURNLEY,
Surgeon-Superintendent.

General Hospital, Hobart Town, March 23rd, 1874.

THE MECHANICAL TREATMENT OF FACIAL PARALYSIS.

To the Editor of THE LANCET.

SIR,—The discomfort and helplessness experienced by patients labouring under facial paralysis has led me to try some simple mode of mechanical assistance.

The greatest difficulty is overcome by the employment of limp flesh-coloured silk plaster, which adheres without irritating, and does not interfere with the movement of the skin.

In a case of ptosis of some years' standing, a narrow strip of the plaster is applied from the edge of the eyelid over the eyebrow, so that it corresponds with the open lid of the other eye. I find, then, that in the use of the orbicularis the frontal muscle relaxes, and permits the eye to close, the lid being connected with and opened by that muscle. In this instance perfect relief is afforded, the patient making the applications herself. In cases of facial paralysis I have found that the distortion can be greatly remedied by the application of a strip of the plaster from the corner of the mouth to the temple. This overcomes the tension of the other side, and gives the facial muscles fixed points to make use of, and so develop the slightest contraction to aid recovery. It also gives the tongue more freedom, and prevents the cheek from falling between the teeth. Where no improvement is possible, great comfort is afforded by the plan, which is, of course, supplementary to constitutional treatment. I am, Sir, yours truly,

FREDERICK H. SMITH, M.D.

Lewisham-hill, S.E., May 12th, 1874.

THE NAVAL MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—The thanks of the Naval Medical Service are due to THE LANCET for the able advocacy of their cause which has lately appeared in its columns. No doubt it has been distasteful to some that such matters should form the theme of comment, as is evident from the paragraph which appeared last Saturday in a naval contemporary so singularly ill-informed in matters purely professional as to propagate an opinion, so glaringly inconsistent with facts, that the Naval Medical Service is a popular one—done apparently in total ignorance of Mr. Ward Hunt's admissions in Parliament, and his regrets that resignations of young surgeons were daily coming before him. Setting that aside, however, as unworthy of serious comment except to show how the official wind blows, I would trespass on your space to bring publicly to notice at the present juncture a circumstance that has done more injury to the department than the authorities are probably aware of. I allude to the appointment of a civilian to Greenwich Hospital for the performance of medical duties. At the time the destruction of that ancient institution was effected the medical staff, which was looked upon as the "blue ribbon" of the service, was abolished. The school alone remained to be provided for, and a staff-surgeon of high reputation was appointed to it, who, after a few months' service, found himself superseded by a young civilian totally unconnected with the navy. And this injustice was committed without the slightest consideration for the staff-surgeon. The whole business was felt to be an injury to a deserving officer, an insult to the class, and is now a standing opprobrium to the service. When the question was mooted in Parliament last session hopes were held out that the arrangement was tentative only, and open to alteration; but I trust the time has now arrived when such a standing insult to the whole Naval Medical Service will be removed.—I remain, Sir, yours &c.,

17th May, 1874. MEDICUS.

AFRICAN FEVERS.

To the Editor of THE LANCET.

SIR,—I notice in your number of Nov. 1st, 1873, in an annotation on African Fevers, the following sentence:—"Dr. Comrie, the surgeon of the *Dido*, states that the remissions are apparent only, the clinical thermometer showing no change of temperature, &c."

Without for a moment doubting the correctness of his observations, the more so that I remember a physician of considerable experience in West Africa saying to me that *he* had never seen a case in which there was remission or intermission, I send you notes of two cases which happened at Cape Coast this year, and say that in my own person and according to the descriptions of patients, the feelings of ease and apyrexia, and their converse, constantly correspond with the changes shown by the thermometer.

I happen to have these notes in my pocket-book. If I had my note-book here, I could show many in which a change from 98° to 103°, 104°, and back again, has exactly corresponded with apparent exacerbation and remission, and with a corresponding rise and fall in pulse and respiration, and in the secretions from skin and kidneys.

Still, from what I have heard from professional friends at sea, on this coast, the cases at sea show much more the continued type than on shore. On shore a tendency to periodicity is strongly marked in other diseases than fever, and this tendency increases with length of residence.

Date.	Hour.	Day.	Pulse.	Temp.	Breath.
— 20	1 A.M.	4th	70	98°	20
„ „	1 P.M.	„	—	—	—
„ 21	11½ A.M.	5th	102	102·1	37
„ „	„ P.M.	„	110	—	24
„ 22	10½ A.M.	6th	84	99·1	22
„ „	5 P.M.	„	94	101·3	24
„ 23	9 A.M.	7th	76	99·4	18
„ „	„ P.M.	„	69	99	19

Date.	Hour.	Day.	Pulse.	Temp.	Breath.
Aug. 15	11 A.M.	1st	106	103·3°	—
„ „	9 P.M.	„	110	103·1	—
„ 16	11 A.M.	2nd	92	102·1	—
„ „	9 P.M.	„	99	104	—
„ 17	10 A.M.	3rd	106	104·4	21
„ „	9 P.M.	„	—	100	—
„ 18	10 A.M.	4th	82	98·4	13
„ „	9 P.M.	„	100	103	—
„ 19	9 A.M.	5th	93	102·3	18, 21, 26
„ „	9 P.M.	„	—	101	—
„ 20	10 A.M.	6th	82	99·2	11
„ 21	11 A.M.	7th	84	102	17
„ „	9 P.M.	„	—	102·1	—
„ 22	10 A.M.	8th	76	99·4	28

I find in the notes—"N.B. The peculiar persistence of high temperature and the obstinate constipation."

I am, Sir, your obedient servant,

SAMUEL ROWE, Surgeon-Major,
In medical charge of Captain Glover's late Expedition up the Volta.

Akropong, Eastern Gold Coast.

Obituary.

W. VESALIUS PETTIGREW, M.D.

AN accomplished teacher and practitioner of medicine has passed away in Dr. William Vesalius Pettigrew, who died on the 13th ult., in his fifty-ninth year. His father was the well-known Mr. T. J. Pettigrew, of the College of Surgeons and the Royal Society, who wrote the biographies of distinguished contemporaries in surgery and medicine; while his grandfather was also a medical man, who, after serving as a navy surgeon, had settled in practice in London. Dr. Vesalius Pettigrew received his classical education at Westminster School, on the conclusion of which he entered on the study of medicine, under the eye of his father, at the Windmill-street School of Medicine and Charing-cross Hospital. In April, 1837, he took the diploma of the Royal College of Surgeons, of which he became an honorary fellow in 1844; and in 1839 he graduated as Doctor of Medicine at the University of Glasgow. On his return to town he established himself in practice in King's-road, Chelsea, combining with this pursuit the office of lecturer on anatomy and physiology at Grainger's School of Medicine in the Borough. From this he passed to Lane's St. George's School of Medicine in Grosvenor-place, and for many years contributed by his ability and zeal to maintain the deservedly high reputation of that institution. He became a fellow of the Medico-Chirurgical Society, at which he read frequent papers, and occasionally lectured at the Royal Institution. With increasing practice he removed from Chelsea to Chester-street, Grosvenor-place, where his *clientèle* continued steadily to rise in number and position, till 1866, when his health, both of mind and body, began to give way. He retired from practice, but, though somewhat restored by the respite, was never able to resume the work for which his naturally vigorous mind yearned. He changed his residence to Colebrook Lodge, Upper Norwood, where he lingered on till an attack of bronchitis cut short his useful career.

Dr. Vesalius Pettigrew was married at a comparatively early age to a lady who died within a year after giving birth to a son. His second wife was Frances Mary, daughter of Thomas Moore, Esq., of Dorset-square, who survives him. His first son died, while prosecuting his medical studies, a few years ago. He leaves his second son, who has lived for some time in India, and three daughters.

DR. WILLIAM LYON.

A LONG and useful life has recently terminate[illegible] decease of Dr. William Lyon, for more than half a [illegible] a practitioner of medicine in Glasgow and its ne[illegible]hood. Dr. Lyon took the licentiateship of the F[illegible] Physicians and Surgeons in 1816, of which body he became a fellow in 1828. Commencing practice a few miles east of Glasgow, he rapidly rose in reputation till he removed to the city itself, where he resided for many years in London-street. About 1844 Dr. Lyon was appointed surgeon to the Infirmary, at the same time becoming lecturer on Surgery in the now defunct Portland-street School of Medicine. He was some time president of the Glasgow Medical Society and of the Glasgow Medico-Chirurgical Society; in fact, there were few medical institutions in Glasgow with which he had not been more or less connected. As a consulting surgeon he stood in high esteem in the West of Scotland. In 1859 the University of Glasgow conferred on him the honorary degree of Doctor of Medicine.

With all his active employment, Dr. Lyon found time to contribute to the literature of the profession, and enriched the Edinburgh, Glasgow, and metropolitan journals with such papers as those on "Cæsarean Section," "Case of Ligature of Common Iliac Artery," "Gutta Percha in Club-foot and Fractures," "Reminiscences of Hernia," and so forth. As a proof of the assiduity with which he stuck to his post, he never went to London till 1851, when he visited the great Exhibition. He was highly popular with his professional brethren for his geniality, shrewdness, directness of purpose, and fertility of resource. He was a bold and successful operator, and was among the first in the West of Scotland to recognise the efficacy of ovariotomy. To the last he retained his interest in his profession, and only two months before his death was re-elected a director of the Royal Infirmary, his connexion with which institution had ceased several years before. Dr. Lyon, who was twice married, leaves a family by his first wife.

ROBERT COWIE, M.D.

A YOUNG practitioner of great promise and of much personal accomplishment beyond the professional sphere has been cut off in Dr. Robert Cowie. The deceased gentleman graduated as Master of Arts in the University of Aberdeen, after which he entered on the study of medicine at the University of Edinburgh. There he graduated as Doctor of Medicine in 1866, writing as his graduation thesis "Shetland and its Inhabitants." He settled in practice in Lerwick, where he rapidly rose in popularity. Among other appointments, he held that of Medical Inspector of Seamen, and Inspector of Lemon-juice for the Northern Districts of Scotland. In Shetland he was most familiar to all sojourners, enlivening their stay by his geniality and rich intellectual resources, and contributing in many ways to make the *Ultima Thule* of Scotland attractive to the stranger. His premature decease is widely and deeply regretted.

ROBERT RANSOM, M.D. ST. AND., F.R.C.S. ENG.

DR. ROBERT RANSOM, of Cambridge, was a son of the late Mr. Henry Ransom, of Trinity-street, and was born about the year 1820. He chose the medical profession, and became a L.S.A. in 1842. He became F.R.C.S. Eng. and L.M. in 1858, and M.D. of St. Andrews University in 1862. He was also a fellow of the Obstetrical Society of London, and a member of St. Andrews Medical Association. His local professional and other connexions were very extensive. He

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entered the Cambridge Town Council in November, 1858, and was re-elected at the expiration of his term of service in 1861, and continued a councillor till October, 1863, when he was appointed surgeon to the Borough Police Force. He had been up to the time of his death an Improvement Commissioner for the parish of Holy Sepulchre since 1865, and a member of the Board of Guardians since 1871, prior to which he was for many years a medical officer of the Union for the Castle-end District. He was district surgeon on the Great Eastern, Great Northern, and Midland Railways, and medical officer to most of the benefit societies of the town.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College on the 21st inst:—

Blanch, Henry J. T., Shacklewell.
Prockter, Alfred E., Cheltenham.
Reid, Thomas W., Canterbury.
Ross, Douglas M'Kissock, Brighton.
Scott, Edward, L.S.A., Honiton, Devon.
Simpson, Walter S., Pontefract, Yorkshire.
Tattershall, Lord, L.S.A., Bacup, Lancashire.

Of the 65 candidates examined on the 19th, 20th, and 21st inst., 19 failed to satisfy the Court of Examiners, and were referred to their professional studies for six months.

The following gentlemen passed the first part of the professional examination for the Fellowship on the 25th, 26th, and 27th inst.:—

W. J. Walsham, F. H. Carter, and G. H. Hames, St. Bartholomew's Hospital; H. Brietzche, R. C. C. Chicken, W. Cock, and C. J. Symonds, Guy's Hospital; T. Sanders, G. D. Thane, and R. B. Wilkins, University College; A. F. J. McGill and J. R. Footner, King's College; S. Osborn, A. O. Phillips, and G. F. Rossiter, St. Thomas's Hospital; L. Mackenzie, London Hospital; C. H. G. Bird, Guy's and Paris; A. Winterbottom, St. George's Hospital; R. N. J. Pughe, Liverpool; G. M. J. Giles and E. J. Edwardes, St. Mary's Hospital; B. Pitts, St. Thomas's and Cambridge; T. Wakefield, Cambridge and University College; and H. H. Murphy, Cambridge and St. George's Hospital.

Forty-six out of the seventy candidates examined failed to satisfy the Court, and were referred to their anatomical and physiological studies for six months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on May 21st:—

Holland, Lucius, Wylam-on-Tyne.
Mason, Richard, Tenby, Pembrokeshire.
Walker, William, Manchester.

The following gentlemen passed their Primary Professional Examination on the same day:—

Frederick William Evans, St. Bartholomew's Hospital; James Jackson Gawith and Thomas John Hitchens, St. Mary's Hospital; Wm. Boyter Johnson, London Hospital.

THE City Corporation has just voted a sum of one hundred guineas to the South London Ophthalmic Hospital.

VACCINATION GRANTS.—The following gentlemen have received Government grants for the efficient performance of vaccination in their respective districts:—G. C. Pauli, of the Barton District, Luton Union, for the second time; Mr. George Lowther, East District, Kingston-upon-Hull, £34 10s.

GROUSE DISEASE ON THE SCOTCH MOORS.—Disease has shown itself among the grouse in the higher districts on Deeside. On the Forest Obirse moors a good many birds have been found dead, and several nests have been seen containing only three or four eggs, which is an unhealthy sign. In the lower grounds the birds have paired well, and as many as ten eggs have been found in some nests.

BOOKS ETC. RECEIVED.

Mr. Cæsar Hawkins: Contributions to Pathology and Surgery.
David Hume: A Treatise on Human Nature. Vols. I. & II.
Mr. Husband: The Student's Handbook of Forensic Medicine.
Mr. Child: The Sanitary Condition of Oxfordshire.
Dr. Hoffman's Medicinischer Führer durch Wien.
Dr. Hocker: Hints for Health.
Dr. Hempel: The Science of Homœopathy.
Dr. Waring: Bazaar Medicines.
Mr. Hinton: Aural Surgery.

Medical Appointments.

BARLOW, Mr. J., has been appointed a House-Surgeon to the Glasgow Royal Infirmary, vice F. T. Davies, L.F.P. & S. Glas., resigned.
BROWN, G., M.R.C.S.E., has been appointed House-Surgeon to the North-Eastern Hospital for Children, Hackney-road.
BUCHANAN, Mr. J. M., has been appointed a House-Surgeon to the Glasgow Royal Infirmary, vice W. Lyon, M.B., C.M., resigned.
CAMPBELL, D., M.D., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for No. 14 District of the Basford Union, vice Woolley, resigned.
CAMPBELL, Mr. A., has been appointed Fever Assistant at the Glasgow Royal Infirmary.
CHILCOT, J., M.R.C.S.E., has been appointed Medical Officer for the Dartford Union Workhouse, vice Hunter, resigned.
CUMMING, W. R., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Assistant Medical Officer at the Middlesex Lunatic Asylum, Hanwell, vice Pattinson, resigned.
FAIRBANK, F. R., M.D., M.R.C.P.Ed., L.R.C.P.L., has been appointed Physician to the District Hospital, Lynton, North Devon.
FISHER, G., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer of Health for the Albury Rural Sanitary District, vice C. H. Furnivall, M.R.C.S.E., resigned: £10 per annum, and 10s. 6d. per case reported on; acreage 8190; population 2544.
FOULIS, D., M.B., C.M., has been appointed a House-Physician to the Glasgow Royal Infirmary, vice G. M'Kerrow, M.B., C.M., resigned.
FRENCH, A. M., M.R.C.S.E., has been appointed House-Surgeon to the General Dispensary, Lincoln, vice Lill, resigned.
GUTHRIE, J., M.B., C.M., has been appointed a House-Surgeon to the Glasgow Royal Infirmary, vice D. Cowie, resigned.
HARTLEY, C., M.R.C.S.E., has been appointed Surgeon to the District Hospital, Lynton, North Devon.
HUDSON, J., M.R.C.S.E., has been appointed Medical Officer for the Bradford District of the Prestwich Union, vice Toyne, deceased.
M'KERROW, G., M.B., C.M., has been appointed a House-Surgeon to the Glasgow Royal Infirmary, vice E. J. Wallace, resigned.
MAC LACHLAN, J., M.B., C.M., has been appointed a House-Physician to the Glasgow Royal Infirmary, vice A. J. Garland, M.R.C.S.E., L.R.C.P.Ed., resigned.
MORGAN, W., Ph.D., F.C.S., has been appointed Public Analyst for Swansea: £100 per annum.
NEWCOMBE, C. F., M.B., C.M. (late Clinical Assistant at the Wakefield Asylum), has been appointed Assistant Medical Officer to the Lancashire County Asylum, Rainhill.
NEWMAN, A. K., M.B., L.R.C.P.L., has been appointed Medical Registrar to the National Hospital for the Paralysed and Epileptic, vice Gowers, appointed an Assistant-Physician.
OMMOND, Mr. F., has been appointed a House-Surgeon to the Glasgow Royal Infirmary, vice J. F. Whittaker, M.B., C.M., resigned.
PICKLES, J. J., M.R.C.S.E., L.R.C.P.Ed., has been appointed House-Physician to the Leeds Infirmary, vice Barfoot, resigned.
PINNOCK, R. D., M.B., C.M., has been appointed a House-Physician to the Glasgow Royal Infirmary, vice T. Buchanan, M.B., C.M., resigned.
REID, A. W., M.A., L.R.C.S.Ed., has been appointed a House-Physician to the Glasgow Royal Infirmary, vice J. Buchanan, resigned.
SCOTT, W. J., M.B., C.M., has been appointed a House-Physician to the Glasgow Royal Infirmary, vice W. H. H. Strother, M.R.C.S.E., L.R.C.P.Ed.
SMITH, A. W., M.P.S., has been appointed Public Analyst for Rye: 5s. to 10s. per analysis.
TURNER, F. C., M.A., M.D., M.R.C.S.E., has been appointed Resident Assistant-Physician to St. Thomas's Hospital, vice Evans, appointed an Assistant-Physician to the Middlesex Hospital.

Births, Marriages, and Deaths.

BIRTHS.

COLTHURST.—On the 18th inst., at Wincanton, Somerset, the wife of J. B. Colthurst, M.R.C.S.E., of a son.
FAGGE.—On the 18th inst., at St. Thomas-street, the wife of C. H. Fagge, M.D., of a daughter.
HAMILTON.—On the 15th inst., at Ashton-under-Lyne, the wife of Alex. Hamilton, L.R.C.P.Ed., of a son.
M'MORRIS.—On the 28th of Feb., the wife of R. J. M'Morris, Staff Surgeon 2nd Class R.N. (late H.M.S. "Encounter"), of a son.
TARRANT.—On the 9th inst., at Leeds, the wife of T. Tarrant, L.K.Q.C.P.I., Surgeon-Major 12th Lancers, of a daughter.

MARRIAGES.

FULLER—SYMONS.—On the 19th inst., at St. Mary's, Stoke Newington, Thomas Fuller, M.D., to Anne Georgina Travers, daughter of the late E. P. Symons, Esq.
HUGHES—OSBURNE.—On the 18th ult., at St. Edward's, Leek, Robt. Jaffray Hughes, L.R.C.P.Ed., to Frances, daughter of John Osburne, Esq.

DEATHS.

BURROWS.—On the 19th ult., at Cape Coast Castle, M. L. Burrows, M.D., Surgeon-Major Army, aged 47.
BYLES.—On the 21st inst., J. C. Byles, M.R.C.S.E., of Victoria-park-road.
CLARKE.—On the 21st inst., J. Clarke, M.R.C.S.E., of Mecklenburg-square (formerly Surgeon R.N.), aged 65.
LUCAS.—On the 20th inst., at Great Homer-street, Kirkdale, Liverpool, James Wm. Reginald, son of Dr. S. A. Lucas, aged 5 months.
M'MORRIS.—On the 18th of March, the wife of R. J. M'Morris, Staff Surgeon 2nd Class R.N. (late H.M.S. "Encounter"). Deeply regretted.
SETON.—On the 7th inst., at New York, Louis F. F. Seton, M.D. (son of R. W. Seton, Esq., of Southampton-road, Maitland-park), aged 23.
SMITH.—On the 17th inst., at Allen-terrace, Kensington, R. Smith, Surgeon, aged 50.

[*N.B.—A fee of 5s. is charged for the insertion of Notices of Births Marriages, and Deaths.*]

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Notes, Short Comments, and Answers to Correspondents.

UNIVERSITY OF LEYDEN.

SOME two years ago we announced to our readers the contemplated publication of a work of the greatest interest for the historian and professional, and more particularly of medical, culture—to wit, "An Album of the Students of Leyden University from its foundation in 1575 down to 1875" (Album Studiosorum Academiæ Lugduno-Batavæ MDLXXV.—MDCCCLXXV.). Its editor is M. Martinus Nijhoff, of the Hague. It will be published next year; and, if we may judge from the prospectus and the specimen pages submitted to us, its interest will fully justify the most sanguine expectations. There is no department of learning in which Leyden has not sent forth trained and energetic workers, as may be seen by one glance at the names of Lipsius, Scaliger, Heinsius, Salmasius, Gronovius, Walckenaer, Ruhnken, Cocceius, Spanheim, Boerhaave, Albinus, Clusius, Musschenbroek, Doneau, Voetius, Noodt, Schulting, and others not less illustrious. These men were also professors in the Leyden school, and attracted to its halls a host of students from all parts of Europe. No University in Christendom could present a more brilliant roll. Among the 70,000 names registered in the forthcoming Album are English, Scottish, French, Italian, Swedish, Danish, Russian, Swiss, Hungarians, Germans from every State in the Empire, not excluding "Garamantas et Indi." The tercentenary of the University will, it is understood, be celebrated on the 8th of February, 1875, when the Curators propose, as an opportune event, to publish the Album. Early in the eighteenth century in the faculty of medicine were enrolled many Englishmen and more Scotchmen (*Scoto-britanni*). In fact, in our own profession, as well as in those of theology and law, a year or two at Leyden was held to "crown the edifice" of academic culture. No more welcome addition to the history of science and literature indeed has been made in our generation.

A Subscriber to THE LANCET.—The Inspectors of Factories.

SECRETION OF BILE.

To the Editor of THE LANCET.

SIR,—In THE LANCET of March 7th I saw under the above heading some of the most important results arrived at by Prof. Stricker and M. Röhrig. Now these results are quite sufficient to make sceptics in experimental physiology, for some of them are diametrically opposed to those arrived at by the Edinburgh Committee, of which Professor J. Hughes Bennett was convener, and Drs. W. Rutherford and A. Gamgee two of its most able members. I will only contrast these results, for everyone can see at a glance how different are the conclusions of these original investigators.

1. Results by Prof. Stricker and M. Röhrig: (*a*) Fasting *stopped* the secretion of bile. (*b*) Ingestion of food *increased* the secretion. (*c*) Cathartics, like croton oil, colocynth, Epsom salts, *increased* the bile. (*d*) Calomel *increased* the secretion.

2. Results of the Edinburgh Committee: (*a*) Fasting *greatly diminished* the secretion. (*b*) The relation between the amount of bile secreted and the quantity of food consumed is not so close as has been supposed. (*c*) Purgatives *diminished* the biliary secretion. (*d*) Calomel *diminished* the secretion.

With these conflicting statements from eminent men—recognised investigators in the department of experimental physiology—what are we to do? Whom are we to believe? It seems that we must be empirics, as we hitherto have been, in this department of therapeutics.

I remain, Sir, yours &c.,

Musselburgh, May 25th, 1874. H. A. C. GRAY, M.B. Edin.

Mr. Hanmer Dickson suggests that the Government should follow up its policy of extinguishing patronage in the Kirk by abolishing the patronage of Town Councils in the Scotch Universities. He further suggests that teachers should not be examiners, at least of their own pupils. Medical reform will take care of the second point. As to the first, the patronage of Town Councils is so checked and scrutinised as to have lost all its old propensity to sectarian animosity or parochial preference.

Dr. Cobbold's article will appear next week.

Medicus.—A man is bound by an agreement to another man, qualified or unqualified; but it is not seemly for qualified members of the profession to come under such engagements to unqualified persons.

MEASLES AT ADVANCED AGES.

To the Editor of THE LANCET.

SIR,—Noticing your remark in your issue of April 25th with regard to measles occurring at an advanced period, I beg to forward you a report of the following case.

On April 14th I was sent for to see a lady, over sixty years of age. She appeared to be suffering from bronchitis, with a good deal of depression, and for such I treated her. Two days afterwards, to my surprise, a thick rash appeared upon the face, neck, and arms, subsequently extending to the trunk and extremities, presenting the usual characteristic of measles, with the peculiar crescentic appearance. Continual sneezing, sickness, and sore-throat preceded the rash, while the eyes were very suffused; pulse averaged 90, with a dry, brown tongue. These symptoms continued for three days, accompanied by delirium at night, when the rash gradually disappeared. Treatment: I kept my patient in bed for a week, chiefly on milk and seltzer-water, together with combined doses of dilute sulphuric acid, nitric ether, and opium. The only complication was an attack of diarrhœa, which quickly subsided under the above treatment.

I am, Sir, your obedient servant,

J. E. GRIFFIELD-COXWELL, L.R.Q.C.P., &c.,

May, 1874. Medical Officer of Health, St. Thomas's Union, Devon.

REGISTRATION OF FOREIGN DEGREES.

Mr. T. Howley.—No foreign or colonial degrees are now registerable under the Medical Act. The Medical Council had power given it by the Medical Act to register persons practising medicine or surgery within the United Kingdom on foreign or colonial degrees before the passing of the Act, but of such persons only. The recognition of colonial hospitals and schools is accorded by the Royal College of Surgeons of England by the same regulations, with respect to number of patients and to courses of lectures, as apply to the recognition of provincial hospitals and schools—that is to say, certificates of hospital practice must be from surgeons who are members of one of the legally constituted Colleges of Surgeons of the United Kingdom, and certificates from any School of Anatomy and Physiology and Midwifery must be from teachers who are members of some legally constituted College of Physicians in the United Kingdo— certificates from any School of Surgery must be from teachers members of one of the legally constituted Colleges of Surgeons United Kingdom. A list of colonial and foreign schools recogn the College will be found in the Medical Directory, as well as sim formation concerning other bodies. But specific inquiry should be of particular examining bodies in the United Kingdom as to the schools and curricula they recognise.

J. C. R., M.D.—Researches concerning the Arteries of the Brain have been published by Dr. Heubner in *Centralblatt für die Medicin. Wissenschaften*, 1872, No. 52; and by Dr. Duret in *Archives de Physiologie Normale et Pathologique*, 1874, No. 1.

Mr. F. Morgan.—Mr. Cheavin, Boston, Lincolnshire.

THE TREATMENT OF ACUTE AND CHRONIC BRONCHITIS AND ASTHMA.

To the Editor of THE LANCET.

SIR,—Perhaps the following few words upon the treatment of the above distressing maladies, more especially of the two latter, may prove interesting to your readers. I have tried iodide of potassium in over a hundred cases with almost invariable success—in fact, with such success that patients have expressed themselves by saying "it has acted like a charm"; others have said that no medicine ever had any *real effect* upon their complaint before. Iodide of potassium has a marked effect upon the breathing, reducing the frequency of the respirations, and, I think, allaying spasm. Almost after the first dose patients have stated they have felt the medicine touch their complaint. I usually prescribe it with carbonate of ammonia, and when the cough is very troublesome I add tincture of belladonna and ipecacuanha wine. In the above complaints I rarely give anything else but the above. In one case of very severe broncho-pneumonia I tried iodide of potassium with tincture of hyoscyamus and carbonate of ammonia, and the respirations were quickly and astonishingly reduced from 40 per minute to less than half that number. In conclusion, I would add that I have purposely given a mixture containing ammonia, tincture of belladonna, ipecacuanha wine, and spirit of sulphuric ether, without iodide of potassium, and not found much benefit; but after adding the iodide of potassium have found the patient relieved at once. I have given this remedy nearly a year's trial, and can confidently and unhesitatingly recommend iodide of potassium as *the* remedy in the above very distressing complaints.

Your obedient servant,

W. H. SPURGIN, M.R.C.S. & L.S.A.,

May 25th, 1874. Resident Medical Officer to the York Dispensary.

Australasian is very indignant that Ascension should have been made a resort for the invalids of Her Majesty's ships *Druid* and *Barracouta* rather than St. Helena. In the latter island there are excellent hospitals; while the sick would receive every comfort in the shape of experienced attendants, fresh provisions, fruits, fish, and so forth. In fact, they could not be better off in England, while they would have a better climate. Ascension (he adds) is but a mass of cinders, with only a few Government storehouses.

"POULTICING BY STEAM AND OTHER NOVELTIES."

To the Editor of THE LANCET.

SIR,—I shall be glad to have your opinion of the enclosed "annual." Is it consistent with a high tone of professional etiquette?—Yours truly,

May 23rd, 1874. M.D.

"Dr. Dobell requests the pleasure of ———'s company at a library party on Thursday evening, June 4th, at 9 o'clock. Evening dress not required. An early answer will oblige. Poulticing by steam and other novelties.—84, Harley-street, W."

*** The question with which our correspondent presses us is one of taste. *De gustibus non est disputandum.* It might be difficult to say why a physician should not summon his friends, in other than evening dress if they please, to discuss steam poulticing and other matters. But the question of taste would remain, and this is just one of those questions which need to be put rather than to be answered.—ED. L.

Hygiene.—The means adopted by our correspondent appear to be very judicious. Is he satisfied that the amount of superficial and cubic space per head is sufficient, that the ventilation is good and free from draughts, and that no sewer or sink gases can mingle with the atmosphere of the building? As regards the closets, the soil-pipe (of cast-lead, and of the same diameter) might be carried up to the highest part of the roof, so as to rise above it. A cast-iron pipe is cheaper, and answers very well. An upright tube, of as near the area of the drain-pipe as possible, should be adapted to the head of each drain. Without the definite information, however, that could only be obtained by an inspection of the building or a plan thereof, we have some hesitation in advising; and our correspondent will do well to procure the little handbook by Mr. William Eassie, C.E., on Healthy Houses, published by Simpkin, Marshall, and Co., which will give him any further information required.

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CLUB DOCTORS.

AT the recent Salford Hundred intermediate Sessions, the Rev. J. S. Birley, after expressing satisfaction with the coroner's accounts, said it had come to the knowledge of the General Finance Committee that there was a practice among certain medical men, who were called Club doctors, paid by salary, of sending medicine to sick people whom they had never seen, and of whose particular malady they knew nothing, excepting what might be gathered from a messenger. Instance after instance had occurred in which the patient had died. He thought the practice would be regarded as derogatory to the profession. This vague and indiscriminate charge is well answered by "A Club Doctor" in a letter to the *Manchester Guardian*. He says very forcibly that Clubs may be trusted not to allow themselves to be treated so by their doctors, especially in Manchester, where probably two-thirds of the medical men attend Clubs, and clearly there is considerable competition for them. We agree with Mr. Birley that names should be published in making such charges, as they involve a class in discredit, than which probably no class does its work more intelligently and conscientiously.

Mr. Fairbank.—Thanks.

CORONERS' INQUESTS.

To the Editor of THE LANCET.

SIR,—I should be glad if you or any of your correspondents could give me reliable information as to the requirements of the inquest law, or, in other and few words, is it imperative to hold inquests in every case of sudden death? and, if so, what are the exceptions to the necessity for medical evidence and even post-mortem examinations? A man partakes cheerfully of a hearty breakfast, adjourns to his labour in agriculture, leaving his wife and five children at home, and seeming, as his wife relates, "in good sperits." Soon after commencing his work he is taken with pain, as was supposed, and drops on to his hands and knees, and, without speaking, is conveyed home, and dies in about twenty minutes. He was scarcely ever known to be ill, nor did he ever consult a medical man, notwithstanding that now and then he would say to his wife "he had suffen (something) the matter with his heart." The inquest was held, and the usual stereotyped verdict returned, "Died from natural causes," without even medical evidence from the surgeon called in to find him dead.

Your obedient servant,

East Rudham, May 25th, 1874. FRED. MANBY, Surgeon, &c.

Dr. E. Pearson.—An application should be made to the chief shipowners, a list of whom will be found in the advertising columns of the *Shipping Gazette*. Application for medical duty in the Government Emigration Service must be made to the Board of Trade; but as comparatively few ships are chartered by the Government for emigration purposes, the staff of medical officers is very small, and the work fluctuating.

GRATUITOUS ADVICE.

To the Editor of THE LANCET.

SIR,—I shall be glad to have the opinion of the profession on the following case, as there appears to be no law, written or unwritten, defining how far a medical man may give advice gratis to the public, to the detriment of neighbouring practitioners, without being accused of unprofessional conduct. During the last two or three years there has resided in this neighbourhood a retired army surgeon, holding an inspectorship of hospitals, who, after a few months' time, I learnt, gave advice gratis on Sundays. Now, advice gratis to the poor is, no doubt, a great piece of philanthropy; but when this gentleman (as I and other practitioners know) gives advice gratis to patients of ours, who are perfectly able to pay, and we are told that the S. physician has given such an opinion about So-and-so's case, where lies our remedy against the bread being taken out of our mouths? Of course advice gratis is generally worth little; but still this course is calculated to lower the status of those practitioners who charge.

Yours faithfully,

Dartford, Kent, May 20th, 1874. R. H. HUNTER, M.R.C.S.E.

BARBAROUS PUNISHMENT OF A BOY.

AT the Weston Petty Sessions on May 15th, Isaac Wilcocks was summoned for committing an aggravated offence on his son, the son being under fourteen years of age. The charge was afterwards altered to one of common assault. The assault complained of was thus described by the boy himself:—

> "On April 29th he was at the back of his father's house, 1, Commercial-buildings, with a chair fastened on to his right leg around the ankle by means of a padlock. The chain and lock produced were those that were placed on him, the other end of the chain being fastened around his waist. His father placed the chain on him, and he remained with it on for a day and a night. The chain caused a soreness on his leg. He was unable to remove his trousers in consequence of the chain, and he slept with the chain about him. His father had subjected him to the same treatment once previously, and it was done for not coming home from school."

The use of the chain was not denied. It was justified on the ground that the boy behaved at times badly, and that unless cured by the use of the chain, which was described as "a moderate and just correction," and as a last resort, he would become a disgrace to the family, and have to be brought before the Bench. The Bench dismissed the charge, only remarking that the defendant had resorted to a most injudicious manner of punishing the child; but one of the magistrates, Mr. Kinglake, differed from his colleagues, and characterised the case as one of gross cruelty, concerning which he would communicate with the Home Secretary. We agree with Mr. Kinglake. What makes the matter worse is that the boy was kept on dry bread. The parents of an incorrigible boy are to be pitied; but they must not be justified in committing cruelty, and it is to be regretted that the magistrates did not in a more decided manner express their sense of the barbarous nature of the punishment here used.

B. X.—Condy's fluid or dilute carbolic acid for rinsing the mouth or brushing the teeth has proved serviceable in such cases.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—I was glad to see a well-written letter on our department in your issue of the 14th March last. Like most army surgeons, I was much opposed to the unification scheme when it was first mooted some five or six years ago. I did not then deny that in some respects it would have its advantages; but I felt that unless the senior executive charges were made permanent commissioned appointments, or secured to the holders by War-Office letter that would secure them from being moved from hospital to hospital at the caprice of the deputy surgeon-general or surgeon-general under whom they might be serving, a very dangerous power would be placed in the hands of such administrative officers as might resent an honest expression of a difference of opinion, and who at the same time shirked personal responsibility, and would not issue an order on a point where they considered their own views correct. I felt that it would do away with that honest independence which it is so advisable to foster, which was encouraged by Sir William Muir when he was P.M.O. in India, and which made him discountenance all over-inspection on the part of deputy-inspectors, and all unnecessary interference with the surgeons in charge of regiments or of hospitals. A move of even ten or twelve miles may be a serious punishment to a family man, and may result in his having to pay rent for two houses for a whole year. I understand that in some stations an attempt is being made to carry out the two systems at one and the same time without the necessary subordinate staff, and without definite orders or instructions, the result being a muddle, squabbles, and excessive friction between the regimental and general hospital officials attempting to combine the two systems in one building. From the time that it was officially notified that the Government had decided on introducing the general hospital system, many of our number who were most opposed to it have cheerfully accepted the decision, and have endeavoured to carry out the wishes of the Government; but we have all felt disappointed that any half-measures should have been adopted, and anxiously look forward to the publication of the views of Mr. Gathorne Hardy and Sir William Muir, and trust either the general hospital system will be introduced in its full integrity, or the regimental one be restored to its former footing. Very many officers who have spent their lives in their regiments and other junior officers still hope and trust that the latter will be restored; but after long and anxious consideration I am convinced that such would be a retrograde step. I am now entirely in favour of the unification. I have myself been a regimental medical officer for nearly twelve years, during the whole of which I was in charge of two corps, and I look back with pleasure to many happy days I spent in them; but I feel bound to say that I cordially endorse everything advanced by your correspondent, "I. V. R. C.," particularly as regards the necessity for distinguishing the different ranks by a distinctive title in each grade. The new regulations as regards mess and band subscriptions are most unjust, and in many instances oppressive. It is no doubt advisable that the junior medical officers (who, as proposed by your correspondent, should be styled assistant-surgeons) should for the first six years of their service be regular dining members of a regimental mess. I would, therefore, make every medical officer during the period he ranked as subaltern a regimental officer, which would teach him habits of obedience and subordination, and give him a knowledge of discipline, which would be invaluable to him during his future service; but he should at the same time be employed on hospital duties at the station where the regiment to which he is attached is located, and he should wear the departmental uniform. Any number of young officers might be attached to a regiment. On attaining the rank of captain with the departmental grade of surgeon at the end of six years' full-pay service (dependent on favourable report of his colonel and departmental superiors), he should be removed from the regiment, and be available for employment wherever his services may be required, and he should no longer be a compulsory member of any mess. No medical officer under the rank of major, with the departmental grade of surgeon-major, should be appointed to the permanent charge (for five years) of a regiment, and for such charges steady men of tact and experience should be selected; and with the view to their keeping up their own knowledge and instructing their juniors, a certain number of meetings monthly for study of professional subjects and the discussion of military medicine and hygiene should be compulsory, detailed reports of which should be made to the P.M.O. for the information of, and transmission to, the Director-General. Medical officers appointed to the charge of corps for five years should be liable to mess contributions and subscriptions as at present, but not to the band. All other medical officers over six years' service should, if temporarily attached to or placed in charge of regiments, have the option of joining the mess, and paying subscriptions for such time as they may avail themselves of it; but it should not be compulsory. A married surgeon-major with a family would feel the privilege of belonging to a mess was a very dear one to him, and that the right of dining there occasionally and seeing the newspapers in the ante-room was purchased at a yearly sum that would in England permit him to use three of the best London Clubs. I consider that the departmental uniform should be a handsome one, and one that everyone could recognise. A uniform similar to that worn by the Royal Engineers, only blue or black, with red velvet facings, would answer admirably. The undress should be like the Engineers, open, with a waistcoat, and, as recommended by "I. V. R. C.," the administrative officers only should wear the cocked-hat, or, if preferred, all might wear helmets, with such difference in ornamentation between the executive and administrative ranks as would be readily distinguished. The medical officer (a surgeon-major or a senior surgeon-major) in charge of a regiment would have ample employment in attending to the sanitary condition of his barracks and quarters, attending the sick officers and the families, and looking after the health and sanitary condition of his corps generally, without attending the sick soldiers; these should be admitted to the general hospital; but he should, in company and consultation with the medical officers doing the hospital duty, see the whole of his sick in hospital once a week, and advise with them as to the invaliding, and he should at all times be available for consultation regarding the men of his corps. The assistant-surgeons attached to the regiment should all do duty in the wards of the general hospital, and, when not otherwise employed on hospital duties, should assist him (the regimental surgeon-major) in the regimental cases.

Yours truly,

May, 1874. A SURGEON-MAJOR OF LONG SERVICE.

AVAILABLE

A MEDICAL LICENCE.

IT is not generally known that in France the medical profession must, in order to practise their art, take out a licence, the cost of which is about £12 a year. This, in itself, is sufficiently disagreeable, and places the profession on a footing with trade. But it has been lately proposed in the National Assembly to increase the cost of this licence, though the measure is not as yet carried. A remarkable fact, and one sharply commented upon by some of the Paris medical journals, is that, out of the twenty-eight doctors sitting in the French Chamber, *not one* rose to oppose the unjust surcharge which has been attempted.

STORAGE OF WATER.

A CORRESPONDENT in *The Times* of Monday last, referring to the important question of village water-supply, which has been once more raised by Mr. Bailey Denton, asks for an inquiry to be made by a Commission into the whole subject of water storage for domestic use. We are under the impression that the final Report of the Rivers Pollution Commission, now in course of preparation, will cover the whole field of inquiry suggested by the "Representative of a Rural District," who will probably be content now to wait and see what that Report will recommend to be done in the matter.

F. L. S.—The recent phenomenon of multitudes of swifts and swallows dropping down dead in the Piazza Navona and other Roman streets is explained by exhaustion due to hunger. The heat of the spring brings forth a large quantity of atmospheric insects, on which these birds feed exclusively; and this year, owing to the cold, the brood of these insects has either altogether failed or has not yet made its appearance.

E. B. W.—One of the best books on the subject is that recently published by Miss Harriet Power, entitled "How shall we Employ and Amuse our Invalids?" The chapter on the comforts that should be supplied in the sick-room is very good, and so is the advice to the invalids themselves. The publishers are Henry S. King and Co.

COMMUNICATIONS, LETTERS, &c., have been received from — Mr. Bryant, London; Dr. H. Thompson, London; Dr. Squarey, London; Dr. Wilks, London; Dr. Sutherland; Mr. Jabez Hogg, London; Dr. Farr, London; Mr. Pearse, London; Mr. Burgess, London; Dr. Leith Adams, London; Dr. Ralfe, London; Mr. Spurgin, York; Mr. Lawson Tait, Birmingham; Mr. Reeves, London; Mr. Walshe, London; Dr. B. Woodman, London; Dr. Fleming, Netley; Dr. Reid, Glasgow; Mr. Stanley Gale, Manchester; Mr. S. Hill, Liverpool; Dr. Fothergill, London; Dr. C. Black, Glasgow; Mr. Morgan, Willington; Mr. Dickson, London; Mr. T. Burt, London; Dr. Foster, New York; Mr. German Reed, London; Mr. R. G. Whitfield, London; Mr. Gray, Musselburgh; Mr. G. Brown; Mr. Benson, London; Mrs. Wilson; Mr. Horsley, St. John's; Mr. Stoney, Carnforth; Dr. Carr, Blackheath; Dr. Rogers, Rainhill; Mr. F. Manley; Mr. Wylde, London; Dr. Russell, Lancaster; Mr. Fairbank, Lynton; Mr. Harrison, Liverpool; Mr. Butlin, London; Dr. Cobbold, London; Mr. Waterer, Bagshot; Dr. Madden, Dublin; Mr. Morris, London; Mr. Cane; Mr. Pauli, Barton; Mr. Norton, London; Mr. Rawlinson, London; Dr. Wiltshire, London; Dr. Gill, Brighton; Mr. Street, London; Mr. Sutton, London; Mr. Condy, Battersea; Mr. Lyle, Dalston; Mr. Roberts, Cardiff; Mr. Aspinall, Fleetwood; Mr. Keating, Westfield; Mr. Forsyth, Elgin; Mr. Colthurst, Wincanton; Mr. Lucas, Kirkdale; Mr. Sime, Glasgow; Dr. Sylvester, Pimlico; Mr. Nunn, London; Mr. Roper, Croydon; Mr. Sewell, Dulwich; Dr. Wallich, Herne Bay; Dr. G. Fisher, Shiro; Mr. Heane, Cheltenham; Mr. Smith, Burton; Dr. Lucas, Liverpool; Mr. Morgan, Culmstock; The Registrar-General, Edinburgh; B.; A Subscriber; R. B. M.; S. W.; Medicus; The Directors of the Phosphate Sewage Company; M.R.C.S.; The Ladies' Committee of the Church of England Temperance Society; Royal Institution; The Secretary of the Pimlico Lying-in Charity; L.M.; A Constant Reader; F.R.C.S.; C. M. O.; &c. &c.

LETTERS, each *with enclosure*, are also acknowledged from—Mr. Garrett, London; Messrs. Beaman and Johnstone, Wigan; Mr. Hookes, London; Mr. Rice, Andover; Miss Spencer, Torquay; Mr. Sprague, Kimbolton; Mr. Crofts, Dover; Mr. Richardson, Elland; Mr. Sandford, Hereford; Dr. Cartwright Reed, Cork; Dr. Smith, Hunslet; Dr. Heffernan, Spennymoor; Dr. Black, Newcastle-on-Tyne; Dr. Clegg, Bacup; Mr. G. Lawson, London; Messrs. Grace, Bristol; Mr. Bell, Hull; Mr. Bunny, Dumfries; Mr. Shone, Marlow; Messrs. Pinchard and Son, Taunton; Mr. Owen, London; Messrs. Lee and Nightingale, Liverpool; Mr. Taylor, Oakhill; Dr. Pearson, Maryport; Mr. Waddell, Tombland; Mr. Whitaker, Derby; Mr. Griffiths, Swansea; Dr. Seaborne, Wombwell; Mr. Gill, Torquay; Dr. Liveing, London; Mr. Atkinson, Wylam; Miss Antrobus, Carlisle; Mr. Rogers, York; Mr. Whitaker, Southport; Mr. Bonas, Rotherham; Dr. Akerman, London; Mr. M'Carthy, Liverpool; Mr. Redmond, Gateshead; Mr. Stafford, Fulbourn; Mr. Jackson, Bedford; Mr. Gill, Sheffield; Mr. Akers, Shipston; Mr. Feltham, Landport; Mr. Smith, Sittingbourne; Dr. Thompson, Warrington; Mr. Duke, Brixton; Mr. Walker, Corwen; Mr. Southon, Wolverhampton; Mr. Lawrence, Milverton; Mr. Muriel, Whitehaven; Dr. De Renzy, Waterford; Dr. Philpots, Dulwich; Mr. White, Penzance; Medicus, Staindrop; B. H. H., Uttoxeter; Beta, Liverpool; M.D., Lowestoft; Medicus, London; M.D., Thrapstone; F. R. S., Peterborough; N. R.

Derby and Chesterfield Reporter, Isle of Man Times, Manchester Guardian, Newcastle Daily Chronicle, Cork Constitution, South London Chronicle, Sunday Times, Liverpool Daily Post, East London Observer, and *South London Journal* have been received.

METEOROLOGICAL READINGS

(*Taken by Steward's Instruments*).

THE LANCET OFFICE, MAY 28TH, 1874.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8 A.M.
May 22	29·66	S.E.	54	58	83	72	42	...	Fine
„ 23	29·54	N.E.	53	55	101	74	52	0·20	Overcast
„ 25	...	...	...	...	...	...	...	...	...
„ 26	29·96	E.	54	58	102	70	50	0·70	Fine
„ 27	30·04	S.E	54	58	99	74	51	...	Fine
„ 28	30·02	WNW	49	53	93	61	42	...	Overcast

Medical Diary for the ensuing Week.

Monday, June 1.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. General Monthly Meeting.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Mr. G. W. Callender, "On the Formation and Early Growth of the Brain of Man."

Tuesday, June 2.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION. — 3 to 5 P.M. Dr. W. H. Stone, "On the Theory of Stringed Musical Instruments," with Musical Illustrations.

Wednesday, June 3.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Thursday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Mr. G. W. Callender, "On the Formation and Early Growth of the Brain of Man."
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Dr. John Williams will show a Specimen of Calcified Fibroids.—Dr. Tilt, "On Lymphangitis in Pelvic Pathology."—Dr. Robt. Gray, "On Separation of the greater portion of the Cervix Uteri during Labour."—And other communications.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M.

Thursday, June 4.

ST. GEORGE'S HOSPITAL.—Operations 1 P.M., and on Friday at 1½ P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Mr. N. S. Maskelyne, "On Physical Symmetry in Crystals."

Friday, June 5.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Mr. G. W. Callender, "On the Formation and Early Growth of the Brain of Man."
ROYAL INSTITUTION.—9 P.M. Prof. Burdon-Sanderson, "On Venus's Fly Trap (Dionæa muscipula)."

Saturday, June 6.

HOSPITAL FOR WOMEN Soho-square.—Operations, 9½ A.M.
ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. R. A. Proctor, "On the Planetary System."

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can only be forwarded as book packets, and *prepaid* as such.

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